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NEWS 6 SEP 09 50 Millionth Unique Chemical Substance Recorded in  
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NEWS 7 SEP 11 WPIDS, WPINDEX, and WPIX now include Japanese FTERM  
thesaurus  
NEWS 8 OCT 21 Derwent World Patents Index Coverage of Indian and  
Taiwanese Content Expanded  
NEWS 9 OCT 21 Derwent World Patents Index enhanced with human  
translated claims for Chinese Applications and  
Utility Models  
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NEWS 12 DEC 01 FRFULL Content and Search Enhancements  
NEWS 13 DEC 01 DGENE, USGENE, and PCTGEN: new percent identity  
feature for sorting BLAST answer sets  
NEWS 14 DEC 02 Derwent World Patent Index: Japanese FI-TERM  
thesaurus added  
NEWS 15 DEC 02 PCTGEN enhanced with patent family and legal status  
display data from INPADOCDB  
NEWS 16 DEC 02 USGENE: Enhanced coverage of bibliographic and  
sequence information  
NEWS 17 DEC 21 New Indicator Identifies Multiple Basic Patent  
Records Containing Equivalent Chemical Indexing  
in CA/CAPLUS  
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Needs, Quickly and Conveniently  
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AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.  
  
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FILE 'HOME' ENTERED AT 07:46:36 ON 04 FEB 2010

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SESSION

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 2 FEB 2010 HIGHEST RN 1204474-62-3

DICTIONARY FILE UPDATES: 2 FEB 2010 HIGHEST RN 1204474-62-3

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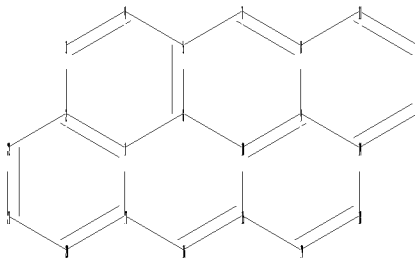
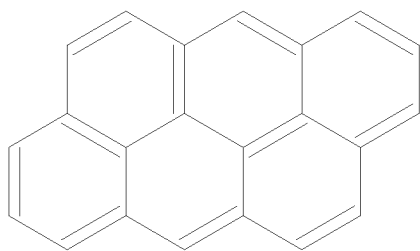
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<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

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ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

ring bonds :

1-2 1-6 1-17 2-3 2-22 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14  
10-15 11-12 12-13 13-14 14-18 15-16 15-19 16-17 17-20 18-19 20-21 21-22

normalized bonds :

1-2 1-6 1-17 2-3 2-22 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14  
10-15 11-12 12-13 13-14 14-18 15-16 15-19 16-17 17-20 18-19 20-21 21-22

Match level :

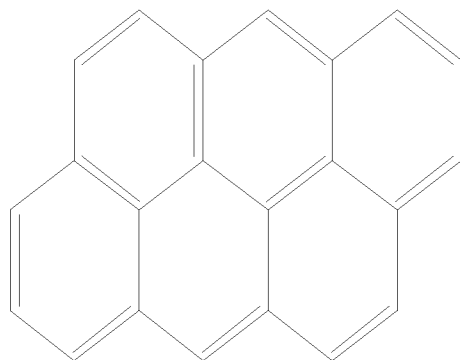
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom

L1 STRUCTURE UPLOADED

=&gt; D L1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=&gt; S L1 FULL

FULL SEARCH INITIATED 07:47:53 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 281439 TO ITERATE

100.0% PROCESSED 281439 ITERATIONS

4724 ANSWERS

SEARCH TIME: 00.00.11

L2 4724 SEA SSS FUL L1

=&gt; FILE CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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192.25

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FILE COVERS 1907 - 4 Feb 2010 VOL 152 ISS 6  
FILE LAST UPDATED: 3 Feb 2010 (20100203/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L2

L3 2995 L2

=> S L3 AND LUMINESCENT

65922 LUMINESCENT

L4 16 L3 AND LUMINESCENT

=> D L4 IBIB ABS HITSTR 1-16

L4 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1506093 CAPLUS

DOCUMENT NUMBER: 152:48399

TITLE: Organic light emitting element and manufacturing method

INVENTOR(S): Sato, Toshikazu; Akedo, Kunio; Mori, Tomohiko; Noda, Koji; Kojima, Kazushige; Katayama, Masayuki

PATENT ASSIGNEE(S): Toyota Central Research and Development Laboratories Inc., Japan; Denso Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 12pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

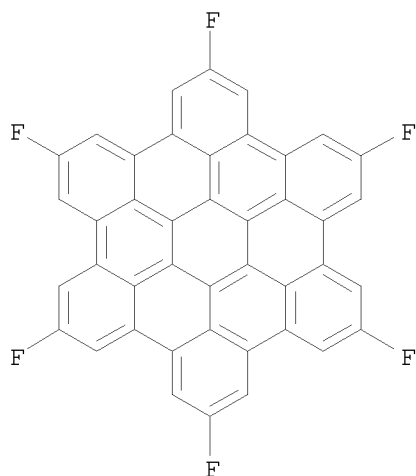
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE  | APPLICATION NO. | DATE  |
|------------|------|-------|-----------------|-------|
| -----      | ---- | ----- | -----           | ----- |

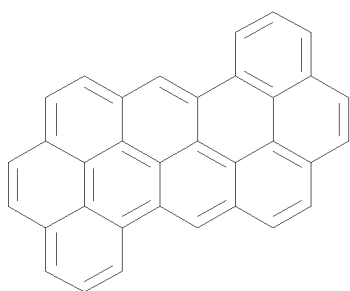
JP 2009283491 A 20091203 JP 2008-131041 20080519  
PRIORITY APPLN. INFO.: JP 2008-131041 20080519  
AB The invention refers to an organic electroluminescent device comprising hole injection electrode, electron injection electrode, and a luminescent layer between them, wherein an inclusion layer having hole injection property and a hole injection layer are placed between the hole injection electrode and luminescent layer. The inclusion layer contains a material having electron withdrawing properties, and the hole injection layer contains two or more hole injection transport materials, and after the hole injection layer is formed, it is heat to above the glass transition temperature of the hole injection transport material having the highest glass transition temperature occupying  $\geq 80\%$  of the volume fraction of the hole injection layer.  
IT 960071-47-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(organic light emitting element and manufacturing method)  
RN 960071-47-0 CAPLUS  
CN Hexabenzob[bc,ef,hi,kl,no,qr]coronene, 2,5,8,11,14,17-hexafluoro- (CA INDEX NAME)



L4 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2008:1180711 CAPLUS  
DOCUMENT NUMBER: 149:412598  
TITLE: Organic electroluminescent material, and electroluminescent device  
INVENTOR(S): Amano, Masaomi  
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 43pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE  | APPLICATION NO. | DATE  |
|------------|------|-------|-----------------|-------|
| -----      | ---- | ----- | -----           | ----- |

JP 2008231127 A 20081002 JP 2007-67993 20070316  
 PRIORITY APPLN. INFO.: JP 2007-67993 20070316  
 AB The invention refers to an organic electroluminescent material comprising as  
 luminescent material a benzo[ghi]perylene or its derivs., which  
 may be substituted with H, halo, hydroxyl, amino, cyano, alkyl, alkenyl,  
 alkoxy, aryloxy, aryl, aromatic heterocycle, aralkyl, arylthio, alkylthio,  
 acyl, alkoxycarbonyl, aryloxycarbonyl, N-alkylcarbamoyl, N-arylcarbamoyl,  
 acylamino, or carboxyl groups.  
 IT 1062628-81-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (organic electroluminescent material, and electroluminescent device)  
 RN 1062628-81-2 CAPLUS  
 CN Benzo[kl]dinaphtho[2,1,8,7-defg:7',8',1',2',3'-pqrst]pentaphene (CA INDEX  
 NAME)



L4 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2007:1056578 CAPLUS  
 DOCUMENT NUMBER: 147:385733  
 TITLE: Preparation of polyphenylene dendrimer  
 INVENTOR(S): Arai, Tatsuo; Hyakutake, Atsuya; Okamoto, Tomoko  
 PATENT ASSIGNEE(S): Tsukuba University, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND              | DATE     | APPLICATION NO. | DATE     |
|------------------------|-------------------|----------|-----------------|----------|
| JP 2007238556          | A                 | 20070920 | JP 2006-66383   | 20060310 |
| PRIORITY APPLN. INFO.: |                   |          | JP 2006-66383   | 20060310 |
| OTHER SOURCE(S):       | MARPAT 147:385733 |          |                 |          |

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Polyphenylene dendrimers represented by formula [I; X = Q wherein one X is  
 introduced at p-position of the stilbene ring or two Qs are introduced at  
 m-positions; two R are same or different and selected from linear or

branched or cyclic C1-20 alkyl, C1-20 alkenyl, C1-20 alkynyl, or C1-20 alkoxy, CO<sub>2</sub>, C1-10 alkylamino, or C1-10 acylamino, any of which is optionally substituted by CO<sub>2</sub>H, NH<sub>2</sub>, SH, OH, vinyl, or Ph; the stilbene has either cis or trans configuration.] are prepared and oxidatively cyclized to give cyclized polyphenylene dendrimers (polycyclic aromatic hydrocarbons) (II) or (III) (R = same as above). These dendrimers and their cyclized products are useful as photochem. materials, organic electroluminescent materials, semiconductor materials, or fluorescent materials. Thus, 1,2-bis(4-dodecylphenyl)ethane-1,2-dione was cyclocondensed with 1,3-diphenylacetone in the presence of KOH in ethanol under refluxing for 15 min to give 3,4-bis(4-dodecylphenyl)-2,5-diphenyl-2,4-cyclopentadien-1-one which underwent Diels-Alder reaction with 3,3',5,5'-tetraethynylstilbene in di-Ph ether at 120° for 26 h to give alkyl-substituted polyphenylene dendrimer, namely 1,2-bis[3,5-bis[2,5-diphenyl-3,4-bis(4-dodecylphenyl)phenyl]phenyl]ethene (IV; X = Q, R = dodecyl). Oxidative cyclization of IV (X = Q, R = dodecyl) using copper(II) triflate and AlCl<sub>3</sub> in carbon disulfide at room temperature for 4 days to give polycyclic aromatic hydrocarbon II (R = dodecyl). IV (X = Q, R = dodecyl) showed fluorescent quantum yield of 0.50, 0.70, and 0.69 in benzene, chloroform, and hexane, resp., in fluorescent excitation spectrum. Trans-IV (X = Q, R = dodecyl) underwent photochem. cis-trans isomerization under UV irradiation

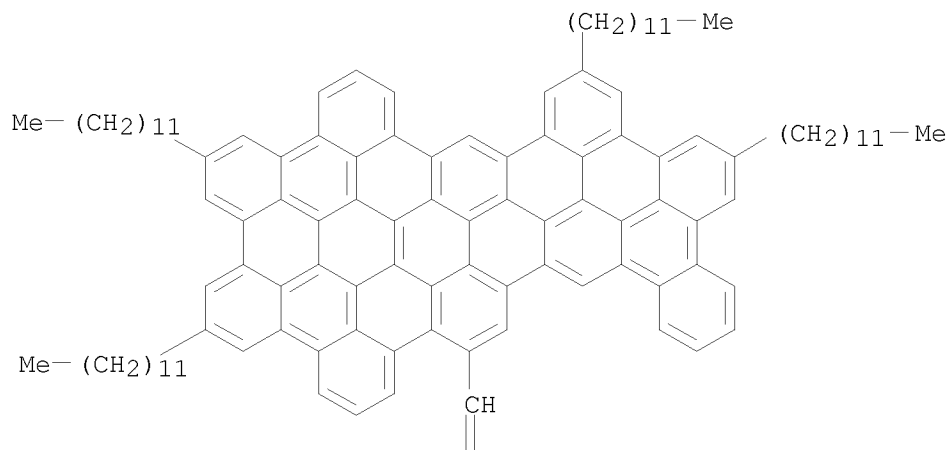
IT 949934-81-0P 949934-82-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of polyphenylene dendrimers and oxidative cyclization to polycyclic aromatic compds.)

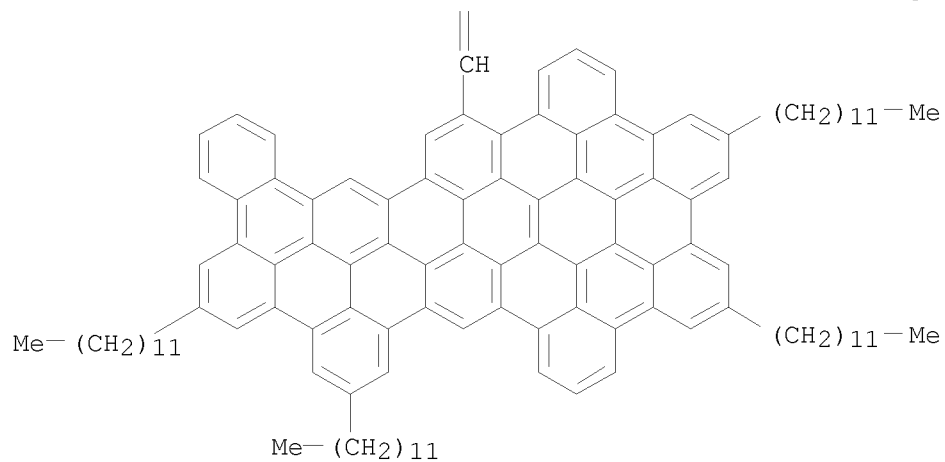
RN 949934-81-0 CAPLUS

CN Tetrabenzo[jk,mn,pq,st]phenanthro[1',10',9',8':3,4,5,6]chryseno[2,1,12-bcd]ovalene, 26,26'-(1,2-ethenediyl)bis[5,8,15,18-tetradodecyl- (CA INDEX NAME)

PAGE 1-A



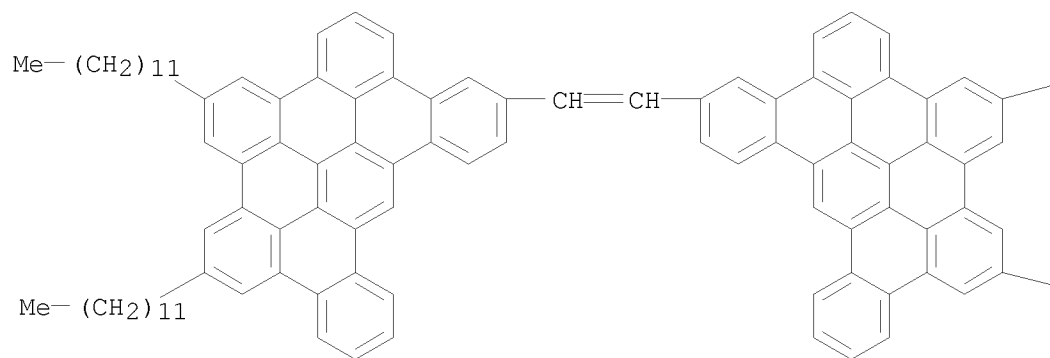
PAGE 2-A



RN 949934-82-1 CAPLUS

CN Dibenzo[fg,ij]phenanthro[9,10,1,2,3-pqrst]pentaphene,  
3,3'-(1,2-ethenediyl)bis[9,12-didodecyl- (CA INDEX NAME)

PAGE 1-A





— (CH<sub>2</sub>)<sub>11</sub>—Me

— (CH<sub>2</sub>)<sub>11</sub>—Me

L4 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:911305 CAPLUS

DOCUMENT NUMBER: 147:266976

TITLE: Organic semiconductive materials containing condensed polycyclic aromatic compounds, their films, devices, and thin-film transistors

INVENTOR(S): Katakura, Toshie; Okubo, Yasushi; Ozeki, Hidekane

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2007207967          | A    | 20070816 | JP 2006-24293   | 20060201 |
| PRIORITY APPLN. INFO.: |      |          | JP 2006-24293   | 20060201 |

OTHER SOURCE(S): MARPAT 147:266976

AB The materials contain condensed polycyclic aromatic compds. bearing LR (R = H, halo, substituent; L = alkenyl- or alkynyl-containing bivalent linkage) and having ≥2 C atoms belongings to 3 rings. The films, devices, and transistors show high carrier mobility and ON/OFF ratio, and good durability. The transistors are useful for organic electroluminescent displays.

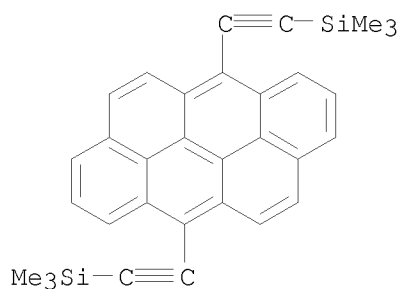
IT 945829-39-0 945829-40-3

RL: TEM (Technical or engineered material use); USES (Uses)

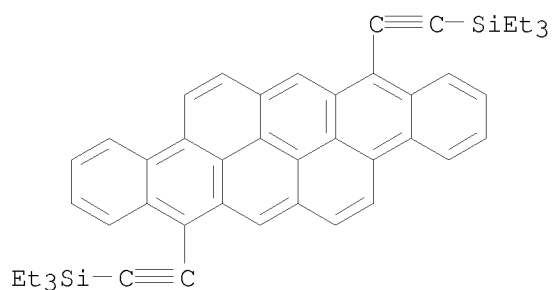
(organic semiconductive materials containing condensed polycyclic aromatic compds. for thin-film transistors)

RN 945829-39-0 CAPLUS

CN Dibenzo[def,mno]chrysene, 6,12-bis[2-(trimethylsilyl)ethynyl]- (CA INDEX NAME)



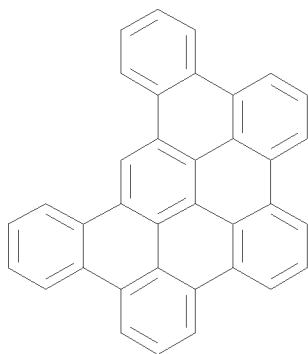
RN 945829-40-3 CAPLUS  
 CN Naphthaceno[2,1,12,11-opqra]naphthacene,  
 8,16-bis[2-(triethylsilyl)ethynyl]- (CA INDEX NAME)



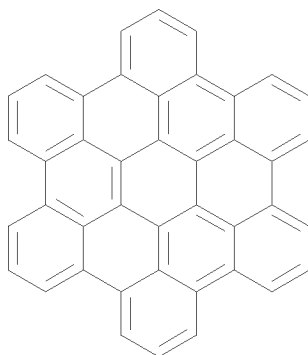
L4 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2006:726141 CAPLUS  
 DOCUMENT NUMBER: 145:280631  
 TITLE: Improving operating lifetime of organic light-emitting diodes with polycyclic aromatic hydrocarbons as aggregating light-emitting-layer additives  
 AUTHOR(S): Jarikov, Viktor V.  
 CORPORATE SOURCE: Research & Development, Eastman Kodak Company, Rochester, NY, 14650, USA  
 SOURCE: Journal of Applied Physics (2006), 100(1), 014901/1-014901/7  
 CODEN: JAPIAU; ISSN: 0021-8979  
 PUBLISHER: American Institute of Physics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB It is common in organic light-emitting diode technol. to construct a light-emitting-layer (LEL) host with materials that resist luminescence-reducing aggregation, which is one of the common reasons behind a phenomenon widely referred to as concentration quenching. However, if a host material in its aggregated state has a substantial quantum yield of fluorescence (e.g., at least several percents), it may yet be useful. We describe a group of aggregating flat and rigid polycyclic aromatic hydrocarbons (PAHs) as LEL additives. These mols. readily form emissive aggregates when added to the LEL. In the resulting devices, the aggregates show low-to-moderate external quantum efficiencies (EQE) of

0.2%-1.3%. Significantly, the addition of these PAHs increases device half-life ( $t_{50}$ ) 4-200 times, depending on the additive, up to 100 000 h upon operation at 40 mA/cm<sup>2</sup>. The lifetime increase occurs with many diverse classes of PAHs. The EQE can be improved to 3.7% by further adding a proper dopant while maintaining the increased lifetime. A possible link between the ability to aggregate and the lifetime increase is illustrated by comparing aggregation-prone perylene and aggregation-resistant 2,5,8,11-tetra-*t*-butylperylene (TBP). Despite the similarity between the two additives with respect to their initial device performance, perylene's stronger ability to aggregate correlates with the eight times longer half-life vs. that for TBP.

IT 188-00-1 190-24-9,  
Hexabenz[bc,ef,hi,kl,no,qr]coronene  
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(improving operating lifetime of organic light-emitting diodes with polycyclic aromatic hydrocarbons as aggregating light-emitting-layer additives)  
RN 188-00-1 CAPLUS  
CN Dibenzo[fg,ij]phenanthro[9,10,1,2,3-pqrst]pentaphene (CA INDEX NAME)



RN 190-24-9 CAPLUS  
CN Hexabenz[bc,ef,hi,kl,no,qr]coronene (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)  
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:646559 CAPLUS  
DOCUMENT NUMBER: 145:292615  
TITLE: From Armchair to Zigzag Peripheries in Nanographenes  
AUTHOR(S): Kastler, Marcel; Schmidt, Jochen; Pisula, Wojciech;  
Sebastiani, Daniel; Muellen, Klaus  
CORPORATE SOURCE: Max-Planck-Institute for Polymer Research, Mainz,  
D-55021, Germany  
SOURCE: Journal of the American Chemical Society (2006),  
128(29), 9526-9534  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 145:292615

AB Synthetic concepts toward the synthesis of large, not-fully benzenoid polycyclic aromatic hydrocarbons (PAHs), decorated with phase-forming and solubilizing n-dodecyl chains, are presented based on the intramol. cyclodehydrogenation reaction of suitable oligophenylene precursors. The formal addition of successive C2 units into the armchair bays of the parent hexa-peri-hexabenzocoronene extends the aromatic system and leads to PAHs with a partial zigzag periphery. This variation of the nature of the periphery, symmetry, size, and shape has a distinct impact upon the electronic properties and the organization into columnar superstructures. Both computational and exptl. UV/vis spectra, which are in good agreement, emphasize the dependence of the characteristic bands  $\alpha$ , p, and  $\beta$  upon the overall size and symmetry of the PAHs. While the number and the substitution patterns of attached n-dodecyl chains do not influence the electronic properties, the thermal behavior and supramol. organization are strongly influenced, which has been elucidated with differential scanning calorimetry (DSC) and 2D wide-angle X-ray diffractometry (2D-WAXS) on mech. aligned samples. This study provides valuable insight into the future design of semiconducting materials based on extended PAHs.

IT 908351-95-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of di(dodecyl)dibenzo[hi,uv]phenanthro[3,4,5,6-bcdef]ovalene  
(not-fully benzenoid polycyclic aromatic hydrocarbon) and determination of  
role of  
symmetry, size and periphery on mol. and supramol. properties)

RN 908351-95-1 CAPLUS

CN Dibenzo[hi,uv]phenanthro[3,4,5,6-bcdef]ovalene, 2,11-didodecyl- (9CI) (CA  
INDEX NAME)

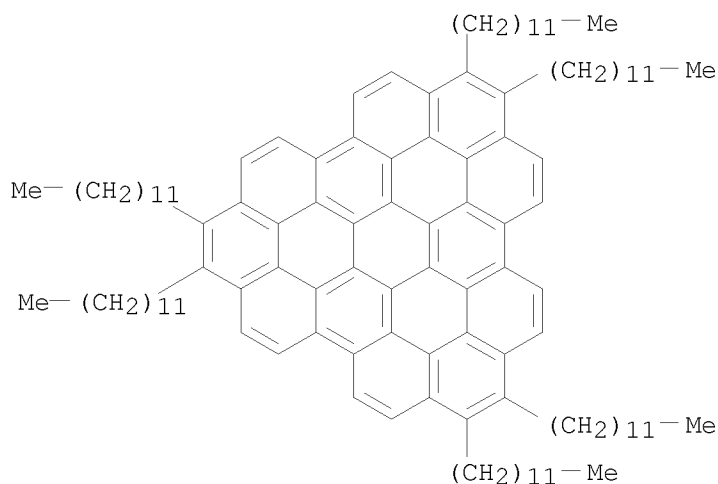
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 908351-97-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of hexa(dodecyl)diphenanthro[3,4,5,6-uvabc;3',4',5',6'-  
efghi]ovalene (not-fully benzenoid polycyclic aromatic hydrocarbon) and  
determination of role of symmetry, size and periphery on mol. and supramol.  
properties)

RN 908351-97-3 CAPLUS

CN Diphenanthro[3,4,5,6-efghi:3',4',5',6'-uvabc]ovalene,  
1,2,7,8,13,14-hexadodecyl- (9CI) (CA INDEX NAME)



IT 908351-96-2P

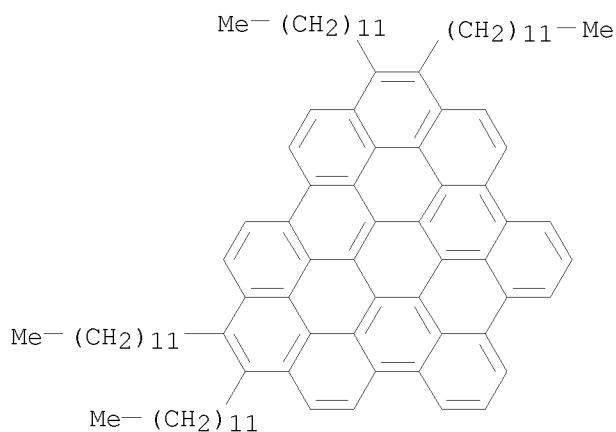
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of tetra(dodecyl)dibenzo[ef,hi]phenanthro[3,4,5,6-uvabc]ovalene  
(not-fully benzenoid polycyclic aromatic hydrocarbon) and determination of

role of

symmetry, size and periphery on mol. and supramol. properties)

RN 908351-96-2 CAPLUS

CN Dibenzo[ef,hi]phenanthro[3,4,5,6-uvabc]ovalene, 5,6,17,18-tetradodecyl-  
(9CI) (CA INDEX NAME)



IT 908351-93-9P

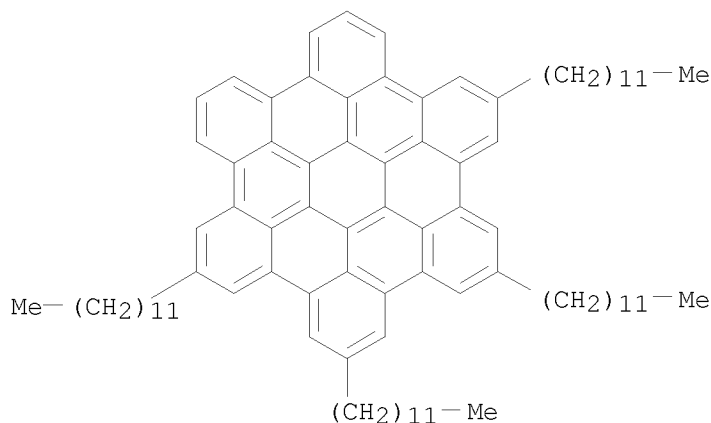
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of tetra(dodecyl)hexabenzo[bc,ef,hi,kl,no,qr]coronene  
(not-fully benzenoid polycyclic aromatic hydrocarbon) and determination of

role of

symmetry, size and periphery on mol. and supramol. properties)

RN 908351-93-9 CAPLUS

CN Hexabenz[bc,ef,hi,kl,no,qr]coronene, 5,8,11,14-tetradodecyl- (CA INDEX NAME)

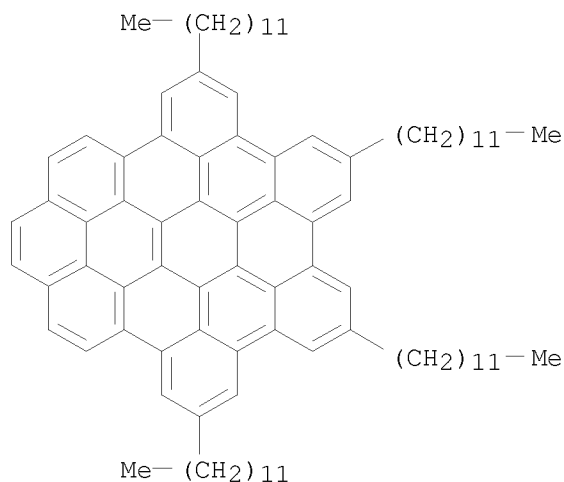


IT 908351-94-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of tetra(dodecyl)tetrabenz[bc,ef,hi,uv]ovalene (not-fully  
 benzenoid polycyclic aromatic hydrocarbon) and determination of role of  
 symmetry,  
 size and periphery on mol. and supramol. properties)

RN 908351-94-0 CAPLUS

CN Tetrabenz[bc,ef,hi,uv]ovalene, 6,9,12,15-tetradodecyl- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 30

THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (31 CITINGS)

REFERENCE COUNT: 47

THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:232468 CAPLUS

DOCUMENT NUMBER: 144:275489

TITLE: Organic and organometallic compound-composited dendrimers and their uses as drug-delivery systems, catalysts, and luminescent and electric materials

INVENTOR(S): Yamamoto, Kimitoshi; Higuchi, Masayoshi; Nakajima, Reina; Suzuki, Mana

PATENT ASSIGNEE(S): Keio University, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2006070100          | A    | 20060316 | JP 2004-252781  | 20040831 |
| PRIORITY APPLN. INFO.: |      |          | JP 2004-252781  | 20040831 |

OTHER SOURCE(S): MARPAT 144:275489

AB The invention relates to electron donating bond or atom-having dendrimers or dendrons containing or compositing with  $\geq 1$  cations or cationic radicals of organic and organometallic compds. Thus, a 4-generation phenylazomethine dendrimer was complexed with triphenylmethyl cation tetrafluoroborate. Solar cells and organo-electroluminescence elements manufactured from a tris(4-bromophenyl)aminium hexachloroantimonate-phenylazomethine dendrimer complex showed resp. high energy-conversion and luminescence efficiency.

IT 190-24-9D, Hexabenzob[bc,ef,hi,kl,no,qr]coronene, derivs.

RL: RCT (Reactant); RACT (Reactant or reagent)

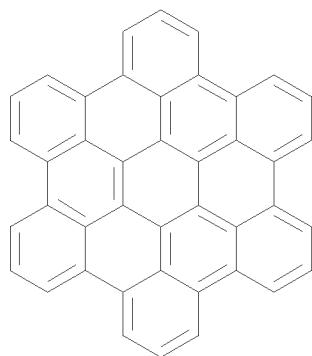
(core for dendrimer; organic and organometallic

cation-polyphenylazomethine dendrimer complexes for drug-delivery

systems, catalysts, solar cells, and electroluminescent and elec. apparatus)

RN 190-24-9 CAPLUS

CN Hexabenzob[bc,ef,hi,kl,no,qr]coronene (CA INDEX NAME)



L4 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:192680 CAPLUS

DOCUMENT NUMBER: 144:263334  
 TITLE: A process for improvement of stability to  
 photooxidation by solvent treatment of polymorphic  
 polycyclic aromatic compounds  
 INVENTOR(S): Begley, William James; Nichols, William Frederick;  
 Rajeswaran, Manju; Andrievsky, Natasha; Landry,  
 Michael Raymond  
 PATENT ASSIGNEE(S): Eastman Kodak Company, USA  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2006023369   | A1   | 20060302 | WO 2005-US28599 | 20050810 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,<br>LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,<br>NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,<br>SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,<br>ZA, ZM, ZW<br>RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,<br>IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,<br>CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,<br>GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,<br>KG, KZ, MD, RU, TJ, TM<br>US 20060047174 A1 20060302 US 2004-924637 20040824<br>US 7371906 B2 20080513 |      |          |                 |          |

PRIORITY APPLN. INFO.: US 2004-924637 A 20040824

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 144:263334

AB A process for improving the stability to photo-oxidation of a polycyclic aromatic compound having at least two polymorphic forms comprises treating a first polymorph with one or more solvents to obtain the more stable second polymorph and then separating the second polymorph from the solvent. Processes for making an OLED device are also discussed which entail subliming the stable polymorph of an polycyclic aromatic compound prepared as described above onto a suitable substrate as part of a luminescent or non-luminescent layer.

IT 190-26-1, Ovalene 190-26-1D, Ovalene, derivs.

191-13-9, Pyranthrene 191-13-9D, Pyranthrene, derivs.

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(polymorphic; process for improvement of stability to photooxidn. by solvent treatment of polymorphic polycyclic aromatic compds.)

RN 190-26-1 CAPLUS

CN Ovalene (CA INDEX NAME)





ACCESSION NUMBER: 2005:1050575 CAPLUS  
 DOCUMENT NUMBER: 143:356308  
 TITLE: Organic electroluminescent devices  
 INVENTOR(S): Shi, Jianmin; Forsythe, Eric; Morton, David Claude  
 PATENT ASSIGNEE(S): The United States of America as Represented by the  
 Secretary of the Army, USA  
 SOURCE: U.S. Pat. Appl. Publ., 46 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 20050214566         | A1   | 20050929 | US 2004-807099  | 20040323 |
| US 7135243             | B2   | 20061114 |                 |          |
| PRIORITY APPLN. INFO.: |      |          | US 2004-807099  | 20040323 |

OTHER SOURCE(S): MARPAT 143:356308

AB Organic electroluminescent devices are described which comprise an anode, a cathode, and  $\geq 1$  organic luminescent layer which contains a compound described by dibenzo[def,mno]chrysene substituted by R1-12 (R1-12 = individually selected H, halo, and C1-48 groups, with the restriction that  $\geq 1$  group is not H).

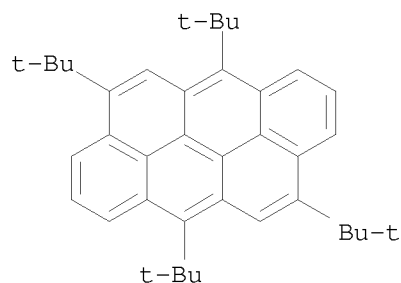
IT 865605-88-5

RL: DEV (Device component use); USES (Uses)

(organic electroluminescent devices using anthanthrene derivs.)

RN 865605-88-5 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,6,10,12-tetrakis(1,1-dimethylethyl)- (CA INDEX NAME)



|    |              |              |              |
|----|--------------|--------------|--------------|
| IT | 865605-89-6P | 865605-90-9P | 865605-91-0P |
|    | 865605-95-4P | 865605-97-6P | 865605-99-8P |
|    | 865606-00-4P | 865606-01-5P | 865606-02-6P |
|    | 865606-03-7P |              |              |

RL: DEV (Device component use); MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

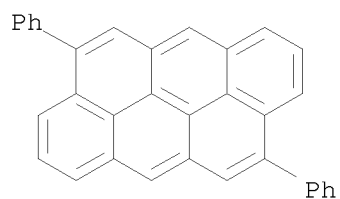
(organic electroluminescent devices using anthanthrene derivs.)

RN 865605-89-6 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,6,10,12-tetraphenyl- (CA INDEX NAME)

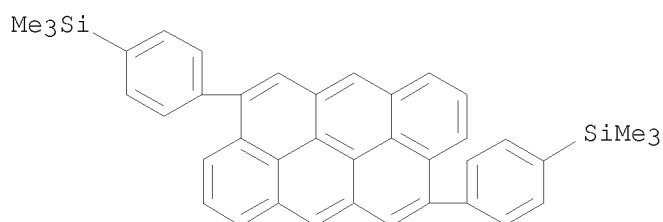


CN Dibenzo[def,mno]chrysene, 4,10-diphenyl- (CA INDEX NAME)



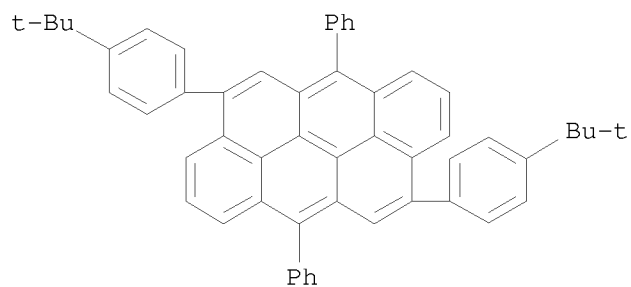
RN 865605-97-6 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



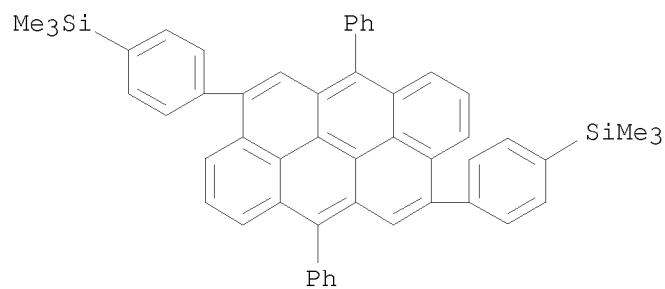
RN 865605-99-8 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(1,1-dimethylethyl)phenyl]-6,12-diphenyl- (CA INDEX NAME)



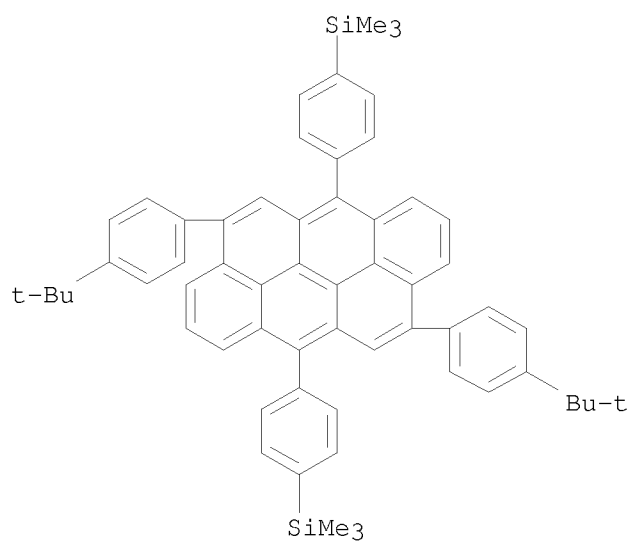
RN 865606-00-4 CAPLUS

CN Dibenzo[def,mno]chrysene, 6,12-diphenyl-4,10-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



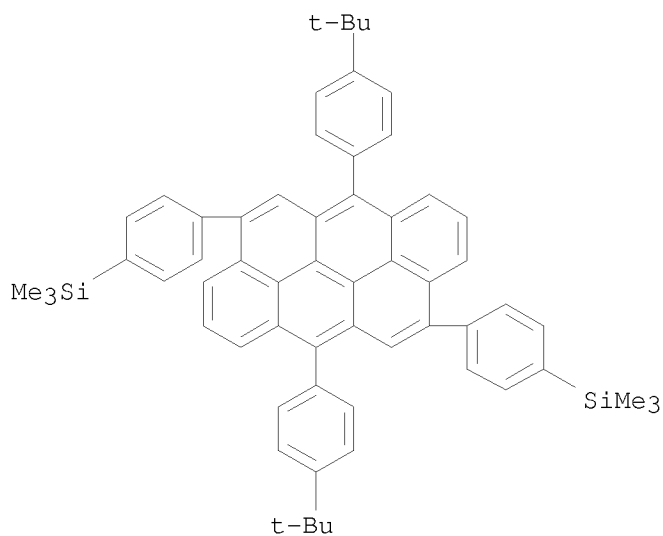
RN 865606-01-5 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(1,1-dimethylethyl)phenyl]-6,12-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



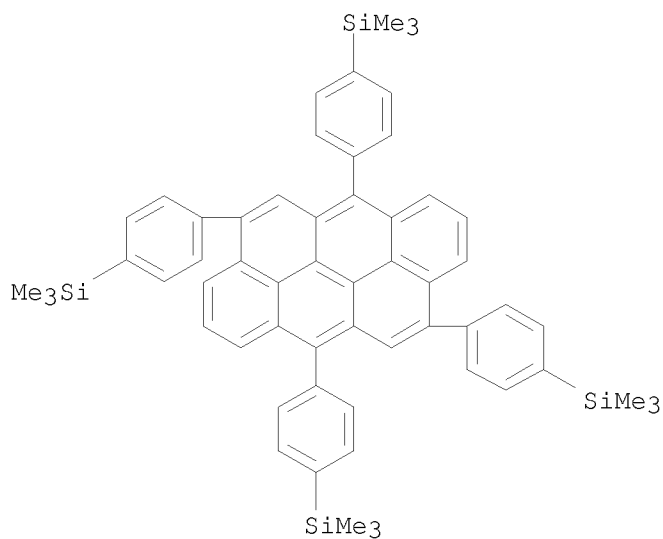
RN 865606-02-6 CAPLUS

CN Dibenzo[def,mno]chrysene, 6,12-bis[4-(1,1-dimethylethyl)phenyl]-4,10-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



RN 865606-03-7 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,6,10,12-tetrakis[4-(trimethylsilyl)phenyl]-  
(CA INDEX NAME)

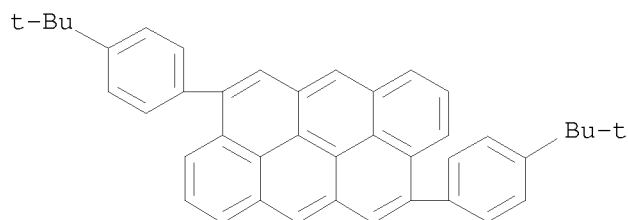


IT 865605-96-5P

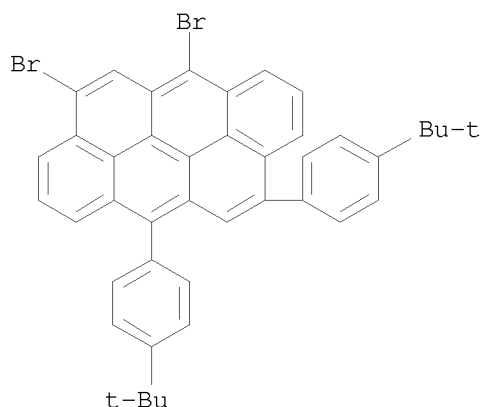
RL: DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(organic electroluminescent devices using anthanthrene derivs.)

RN 865605-96-5 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(1,1-dimethylethyl)phenyl]- (CA  
INDEX NAME)



IT 865605-98-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (organic electroluminescent devices using anthanthrene derivs.)  
 RN 865605-98-7 CAPLUS  
 CN Dibenzo[def,mno]chrysene, 4,6-dibromo-10,12-bis[4-(1,1-  
 dimethylethyl)phenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
 (1 CITINGS)

L4 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2005:1050362 CAPLUS  
 DOCUMENT NUMBER: 143:356259  
 TITLE: Organic luminescent materials  
 INVENTOR(S): Shi, Jianmmmin; Forsythe, Eric; Morton, David Claude  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 52 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE              | APPLICATION NO. | DATE     |
|---|------|-------------------|-----------------|----------|
| US 20050212409  | A1   | 20050929          | US 2004-807130  | 20040323 |
| PRIORITY APPLN. INFO.:  |      |                   | US 2004-807130  | 20040323 |
| ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT |      |                   |                 |          |
| OTHER SOURCE(S):  |      | MARPAT 143:356259 |                 |          |

AB Organic luminescent materials are described which comprise compds. described by dibenzo[def,mno]chrysene substituted by R1-12 (R1-12 = individually selected groups, with the restriction that  $\geq 1$  of R1, R3, R7, and R9 is not H). Use in organic electroluminescent devices is shown in examples.

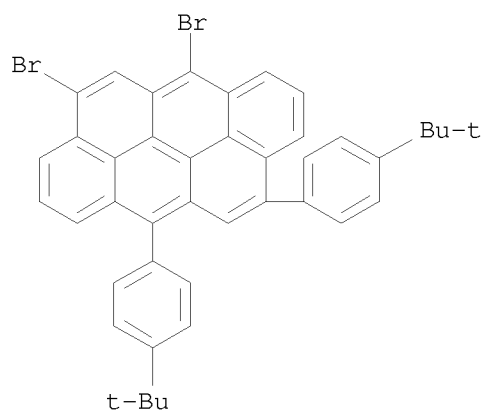
IT 865605-98-7

RL: PRPH (Prophetic)

(Organic luminescent materials)

RN 865605-98-7 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,6-dibromo-10,12-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



IT 865605-91-0P

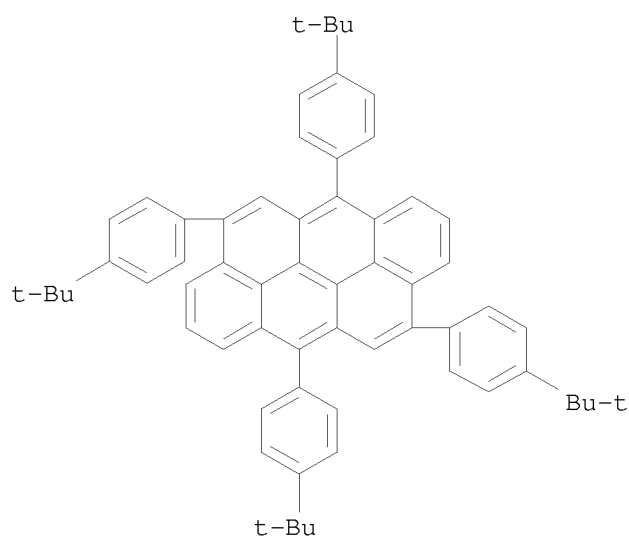
865605-95-4P

RL: DEV (Device component use); MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(organic luminescent materials comprising anthanthrene derivs.)

RN 865605-91-0 CAPLUS

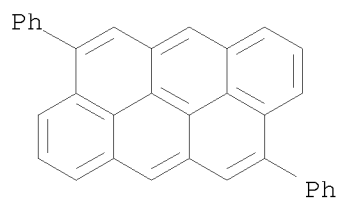
CN Dibenzo[def,mno]chrysene, 4,6,10,12-tetrakis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)





RN 865605-95-4 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-diphenyl- (CA INDEX NAME)

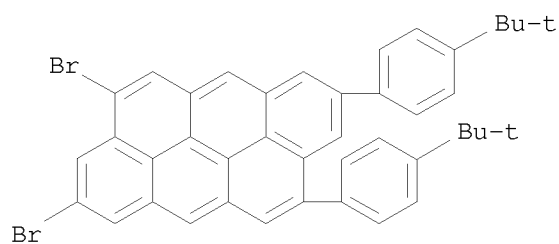


IT 865606-34-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(organic luminescent materials comprising anthanthrene derivs.)

RN 865606-34-4 CAPLUS

CN Dibenzo[def,mno]chrysene, 2,4-dibromo-8,10-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



IT 865605-96-5P

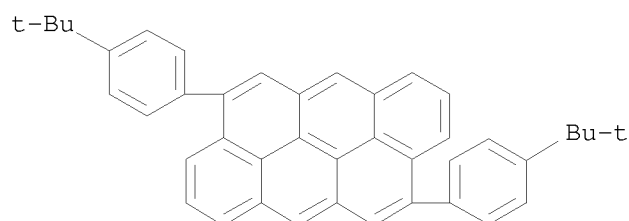
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent);

## USES (Uses)

(organic luminescent materials comprising anthanthrene derivs.)

RN 865605-96-5 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



IT 865605-89-6P 865605-90-9P 865605-97-6P

865605-99-8P 865606-00-4P 865606-01-5P

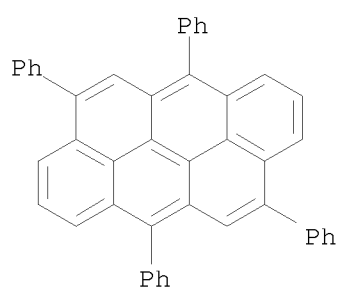
865606-02-6P 865606-03-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(organic luminescent materials comprising anthanthrene derivs.)

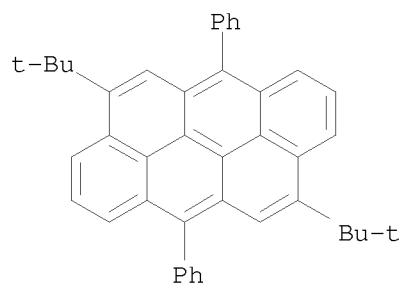
RN 865605-89-6 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,6,10,12-tetraphenyl- (CA INDEX NAME)



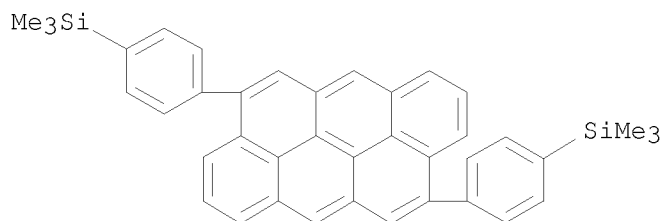
RN 865605-90-9 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis(1,1-dimethylethyl)-6,12-diphenyl- (CA INDEX NAME)



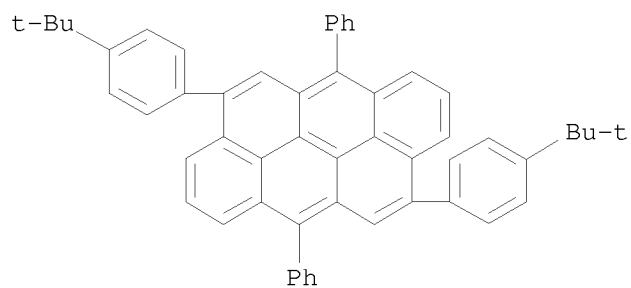
RN 865605-97-6 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



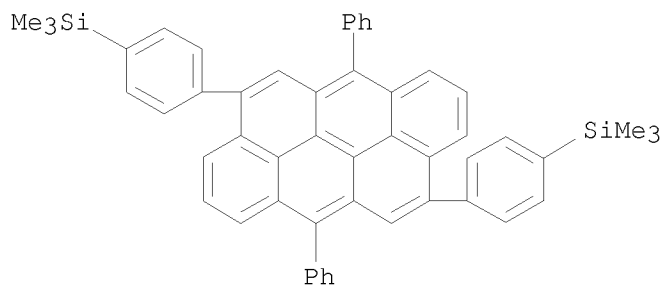
RN 865605-99-8 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(1,1-dimethylethyl)phenyl]-6,12-diphenyl- (CA INDEX NAME)



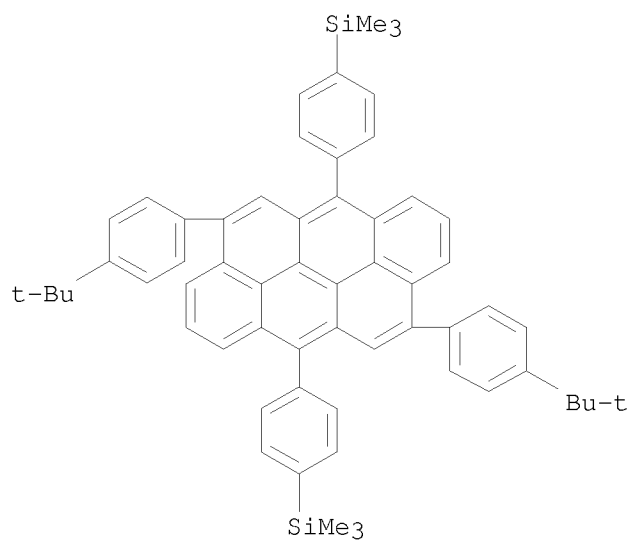
RN 865606-00-4 CAPLUS

CN Dibenzo[def,mno]chrysene, 6,12-diphenyl-4,10-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



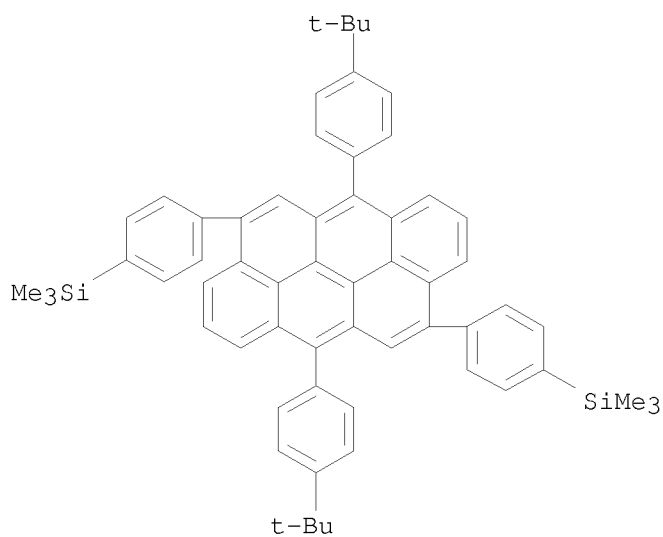
RN 865606-01-5 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,10-bis[4-(1,1-dimethylethyl)phenyl]-6,12-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



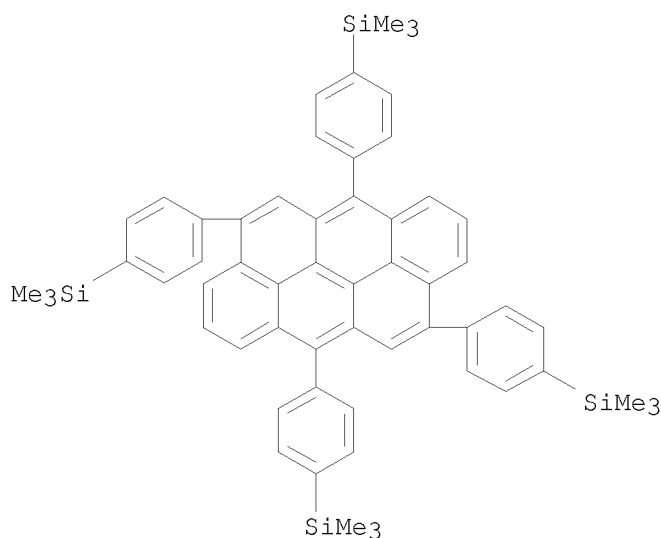
RN 865606-02-6 CAPLUS

CN Dibenzo[def,mno]chrysene, 6,12-bis[4-(1,1-dimethylethyl)phenyl]-4,10-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



RN 865606-03-7 CAPLUS

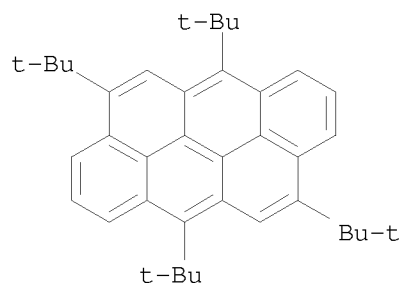
CN Dibenzo[def,mno]chrysene, 4,6,10,12-tetrakis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



IT 865605-88-5

RL: TEM (Technical or engineered material use); USES (Uses)  
(organic luminescent materials comprising anthanthrene derivs.)

RN 865605-88-5 CAPLUS

CN Dibenzo[def,mno]chrysene, 4,6,10,12-tetrakis(1,1-dimethylethyl)- (CA  
INDEX NAME)

L4 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:182182 CAPLUS

DOCUMENT NUMBER: 142:268913

TITLE: Fluorescent material, organic electroluminescent  
element and organic electroluminescent display

INVENTOR(S): Sotoyama, Wataru

PATENT ASSIGNEE(S): Fujitsu Limited, Japan; Fuji Photo Film Co., Ltd.

SOURCE: U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.     | KIND | DATE     | APPLICATION NO.  | DATE     |
|----------------|------|----------|------------------|----------|
| US 20050048313 | A1   | 20050303 | US 2004-801546   | 20040317 |
| US 7326476     | B2   | 20080205 |                  |          |
| JP 2005075868  | A    | 20050324 | JP 2003-305621   | 20030829 |
| CN 1609163     | A    | 20050427 | CN 2004-10034818 | 20040414 |
| CN 1329354     | C    | 20070801 |                  |          |

PRIORITY APPLN. INFO.: JP 2003-305621 A 20030829  
 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OTHER SOURCE(S): MARPAT 142:268913  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

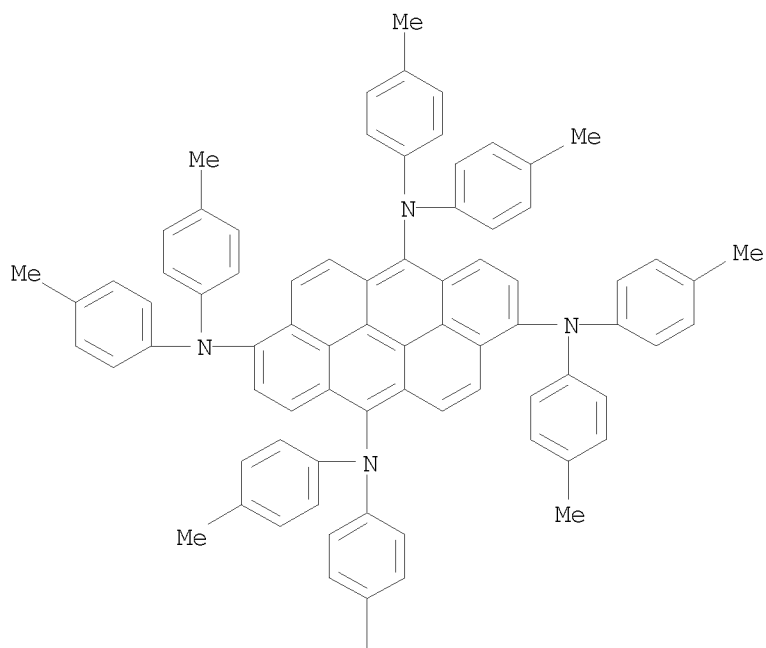
AB The invention refers to an organic electroluminescent element having an organic light-emitting layer between an anode and a cathode, wherein the organic light-emitting layer comprises, as an organic light-emitting layer forming material, a fluorescent material comprising a perylene compound I [R1-12 = H or -CH:CH-Ph-N(R13)R14, wherein two or more are not H; R13,14 = (un)substituted aromatic or aliphatic and may be bonded to each other] and/or an anthanthrene compound II [R101-112 = H or N(R113)R114, wherein 4 or more are not H; R113,114 = (un)substituted aromatic or aliphatic and may be bonded to each other]. A fluorescent material that emits red light with a high color purity and a high luminous efficiency-when used singly or as a guest, an organic EL element having a high luminous efficiency, and a high-performance organic EL display having a high luminous efficiency are realized.

IT 845896-94-8P 845896-97-1P 845896-98-2P  
 RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
 (fluorescent material, organic electroluminescent element and organic electroluminescent display using perylene and anthanthrene derivs.)

RN 845896-94-8 CAPLUS

CN Dibenzo[def,mno]chrysene-3,6,9,12-tetramine,  
 N3,N3,N6,N6,N9,N9,N12,N12-octakis(4-methylphenyl)- (CA INDEX NAME)

PAGE 1-A

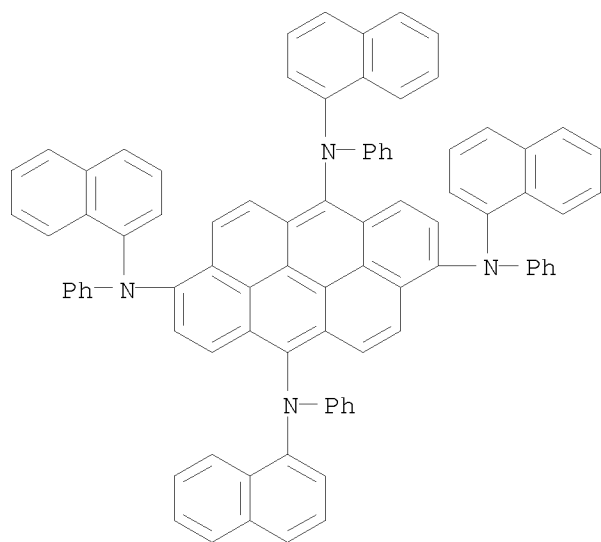


PAGE 2-A



RN 845896-97-1 CAPLUS

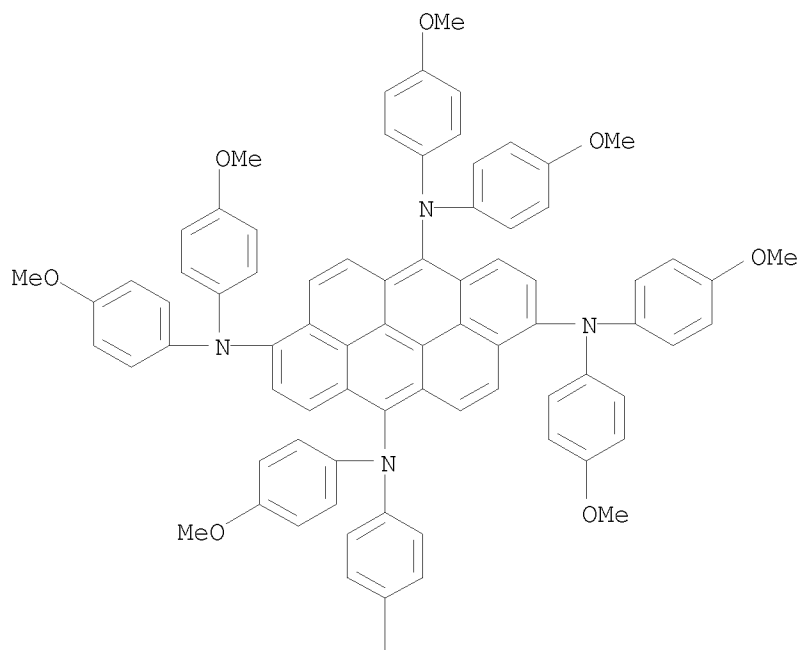
CN Naphtho[7,8,1,2,3-nopqr]benz[a]anthracene-3,6,9,12-tetramine,  
N3,N6,N9,N12-tetra-1-naphthalenyl-N3,N6,N9,N12-tetraphenyl- (CA INDEX  
NAME)



RN 845896-98-2 CAPLUS

CN Dibenzo[def,mno]chrysene-3,6,9,12-tetramine,  
N3,N3,N6,N6,N9,N9,N12,N12-octakis(4-methoxyphenyl)- (CA INDEX NAME)

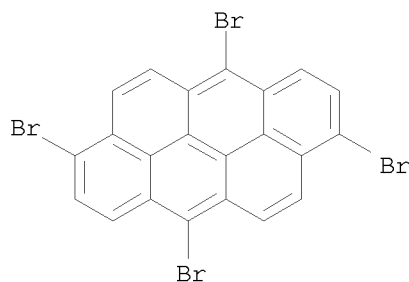
PAGE 1-A





|  
 OMe

IT 845896-96-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (fluorescent material, organic electroluminescent element and organic  
 electroluminescent display using perylene and anthanthrene derivs.)  
 RN 845896-96-0 CAPLUS  
 CN Dibenzo[def,mno]chrysene, 3,6,9,12-tetrabromo- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2004:331637 CAPLUS  
 DOCUMENT NUMBER: 140:365374  
 TITLE: Organic light-emitting diode devices with improved  
 operational stability  
 INVENTOR(S): Jarikov, Viktor V.  
 PATENT ASSIGNEE(S): Eastman Kodak Company, USA  
 SOURCE: U.S. Pat. Appl. Publ., 108 pp., Cont.-in-part of U.S.  
 Ser. No. 131,801, abandoned.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE   | APPLICATION NO.  | DATE        |
|------------------------|------|--|------------------|-------------|
| US 20040076853         | A1   | 20040422   | US 2003-634324   | 20030805    |
| US 7183010             | B2   | 20070227   |                  |             |
| TW 314947              | B    | 20090921   | TW 2003-92105220 | 20030311    |
| JP 2003347058          | A    | 20031205   | JP 2003-118497   | 20030423    |
| CN 1453886             | A    | 20031105   | CN 2003-124026   | 20030424    |
| CN 100452475           | C    | 20090114   |                  |             |
| PRIORITY APPLN. INFO.: |      |  | US 2002-131801   | B2 20020424 |
| OTHER SOURCE(S):       |      | MARPAT 140:365374  |                  |             |
| AB                     |      | Organic light-emitting devices which comprise a substrate; an anode and a cathode disposed over the substrate; a luminescent layer disposed between the anode and the cathode are described in which the |                  |             |

luminescent layer includes a host and  $\geq 1$  dopant; the host including a solid organic material comprising a mixture of  $\geq 2$  components including a first component that is an organic compound capable of transporting either electrons and/or holes and of forming both monomer state and an aggregate state and a second component of that is an organic compound that upon mixing with the first host component is capable of forming a continuous and substantially pin-hole-free layer, while the dopant of is selected to produce light from the light-emitting device. The first component is capable of forming an aggregate state either in the ground electronic state or in an excited electronic state that results in a different absorption or emission spectrum or both relative to the absorption or emission spectrum or both of the monomer state, resp., or of forming an aggregate state whose presence results in a quantum yield of luminescence of the monomer state being different relative to the quantum yield of luminescence of the monomer state in the absence of the aggregate state.

The aggregate state may be crystalline

IT 187-94-0, 3.4,11.12-Dibenzobisanthrene 187-95-1,  
Perylo[3,2,1,12-pqrab]perylene 188-00-1,  
Dibenzo[fg,ij]phenanthro[9,10,1,2,3-pqrst]pentaphene 188-11-4,  
Benzo[pqr]dinaphtho[8,1,2-bcd:2',1',8'-lmn]perylene 188-42-1,  
Naphthaceno[2,1,12,11-opqra]naphthacene 188-50-1,  
peri-Naphthacenonaphthacene 190-24-9,  
1.12,2.3,4.5,6.7,8.9,10.11-Hexabenzocoronene 190-24-9D,  
Hexabenzo[bc,ef,hi,kl,no,qr]coronene, derivs. 190-25-0,  
Tetrabenzo[gh,jk,tu,wx]pyranthrene 190-26-1, Ovalene  
190-28-3, Phenanthro[3,4,5,6-bcdef]ovalene 190-31-8,  
1.14-Benzobisanthrene 190-47-6,  
Dinaphtho[8,1,2-abc:8',1',2'-jkl]coronene 190-55-6,  
Dibenzo[bc,kl]coronene 190-71-6,  
Benzo[pqr]naphtho[8,1,2-bcd]perylene 190-90-9,  
Benzo[rs]dinaphtho[2,1,8,7-klmn:3',2',1',8',7'-vwxyz]hexaphene  
191-12-8, Benzo[a]pyranthrene 191-13-9, Pyranthrene  
191-13-9D, Pyranthrene, derivs. 191-26-4, Anthanthrene  
191-26-4D, Anthanthrene, derivs. 313-65-5,  
Dibenzo[ij,rst]phenanthro[9,10,1,2-defg]pentaphene 313-65-5D,  
derivs. 4552-79-8 6208-20-4,  
Benzo[cd]naphtho[3,2,1,8-pqra]perylene 6596-38-9,  
Naphtho[5,4,3-abc]coronene 22176-87-0,  
Anthra[2,1,9,8-stuva]benzo[op]naphtho[2,1,8,7-hijk]pentacene  
34814-80-7D, derivs. 41132-64-3,  
Diphenaleno[9',1',2':3,4,5:9'',1'',2'':9,10,11]coroneno[1,2-c:7,8-  
c']difuran 41163-25-1, Circobiphenyl 53086-28-5,  
Dinaphtho[8,1,2-abc:2',1',8'-klm]coronene 57789-81-8,  
Dibenzo[a,ghi]naphtho[2,1,8-cde]perylene 70346-75-7,  
Dibenzo[a,jk]phenanthro[8,9,10,1,2-cdefgh]pyranthrene 72986-34-6  
, Benzo[def]pyranthrene 74335-56-1, Peri-Pentacenopentacene  
75449-86-4, Benzo[g]naphtho[8,1,2-abc]coronene  
75449-87-5, Phenanthro[1,10,9-abc]coronene 75449-88-6,  
Benz[a]ovalene 75449-89-7, Benz[d]ovalene 75449-90-0  
, Pyreno[10,1,2-abc]coronene 75449-92-2,  
Phenanthro[5,4,3,2-abcde]perylene 75449-94-4,  
Benzo[lmn]naphtho[2,1,8-qla]perylene 75449-98-8,  
Benzo[ij]dinaphtho[2,1,8,7-defg:7',8',1',2',3'-pqrst]pentaphene  
75449-99-9, Benzo(m)naphtho[8,1,2-abc]coronene  
75450-00-9, Benzo(p)naphtho[8,1,2-abc]coronene  
75459-00-6, Benzo[j]naphtho[8,1,2-abc]coronene  
75459-01-7, Phenanthro[10,1,2-abc]coronene 75459-02-8,

Dinaphtho[8,1,2-abc:8',1',2'-ghi]coronene 75459-03-9  
75459-04-0, Pyreno[1,10,9-abc]coronene 75459-05-1,  
Benzo[qr]naphtho[3,2,1,8-defg]chrysene 75459-08-4,  
Dibenzo[a,cd]naphtho[8,1,2,3-fghi]perylene 75459-09-5,  
Dibenzo[ij,rst]naphtho[2,1,8,7-defg]pentaphene 77147-27-4,  
Tribenzo[a,jk,v]phenanthro[8,9,10,1,2-cdefgh]pyranthrene  
91374-35-5, Naphth[2,1,8-uva]ovalene 92586-98-6,  
Anthra[2,1,9,8-opqra]naphthacene 96915-19-4,  
Benz[mno]indeno[5,6,7,1-defg]chrysene 96915-20-7,  
Dibenzo[def,mno]cyclopenta[hi]chrysene 96915-21-8,  
Benz[mno]indeno[1,7,6,5-cdef]chrysene 105442-96-4,  
Dibenzo[def,i]naphtho[8,1,2-vwx]pyranthrene 108189-73-7D,  
derivs. 109278-09-3, Dibenzo[cd,n]naphtho[3,2,1,8-  
pqra]perylene 115697-04-6D, derivs. 115697-10-4  
115697-12-6, Benzo[m]diphenanthro[1,10,9-abc:1',10',9'-  
ghi]coronene 115697-46-6D, derivs. 117726-83-7,  
Benz[4,10]anthra[1,9,8-abcd]coronene 119123-36-3,  
Naphtho[7,8,1,2,3-tuvwx]hexaphene 120835-55-4,  
Naphtho[7,8,1,2,3-pqrst]pentaphene 120835-61-2,  
Dibenzo[b,qr]naphtho[3,2,1,8-defg]chrysene 120835-69-0,  
Benzo[h]naphtho[7,8,1,2,3-pqrst]pentaphene 120835-72-5,  
Dibenzo[c,hi]naphtho[3,2,1,8-mnop]chrysene 120835-74-7,  
Benzo[de]naphtho[8,1,2,3-stuv]picene 120835-77-0,  
Anthra[2,1,9,8-defgh]pentaphene 120835-78-1,  
Benzo[a]naphtho[7,8,1,2,3-pqrst]pentaphene 120835-79-2,  
Phenanthro[9,10,1,2,3-pqrst]pentaphene 120835-80-5,  
Benzo[c]naphtho[7,8,1,2,3-pqrst]pentaphene 120835-81-6,  
Phenanthro[2,3,4,5-tuvab]picene 120835-82-7,  
Anthra[8,9,1,2-cdefg]benzo[a]naphthacene 120835-85-0,  
Naphtho[3,2,1,8,7-vwxyz]hexaphene 120835-87-2,  
Anthra[8,9,1,2-lmnop]benzo[a]naphthacene 120835-88-3,  
Anthra[2,1,9,8-stuva]pentacene 120835-91-8,  
Dibenzo[fg,ij]naphtho[7,8,1,2,3-pqrst]pentaphene 120835-92-9,  
Dibenzo[de,ij]naphtho[3,2,1,8,7-rstuv]pentaphene 120835-93-0,  
Dinaphtho[2,1,8-fgh:3',2',1',8',7'-rstuv]pentaphene 120835-94-1  
, Dinaphtho[2,1,8,7-defg:2',1',8',7'-qrst]pentacene 120835-95-2  
, Dinaphtho[1,8-ab:8',1',2',3'-fghi]perylene 120835-96-3  
120835-97-4, Dinaphtho[8,1,2-cde:7',8',1',2',3'-pqrst]pentaphene  
120835-98-5, Dinaphtho[2,1,8-fgh:7',8',1',2',3'-pqrst]pentaphene  
120836-01-3, Anthra[2,1,9,8-defgh]benzo[rst]pentaphene  
120836-02-4, Dibenzo[cd,k]naphtho[3,2,1,8-pqra]perylene  
120836-03-5, Dibenzo[a,ghi]naphtho[8,1,2-klm]perylene  
120836-04-6, Dibenzo[a,ghi]naphtho[2,1,8-lmn]perylene  
120836-05-7, Dibenzo[ghi,n]naphtho[8,1,2-bcd]perylene  
120836-06-8, Benzo[e]phenanthro[2,3,4,5-pqrab]perylene  
120836-08-0, Anthra[2,1,9,8,7-defghi]benzo[st]pentacene  
120836-11-5, Pyreno[5,4,3,2,1-pqrst]pentaphene  
120836-12-6 120836-13-7,  
Anthra[2,1,9,8,7-defghi]benzo[uv]pentacene 120836-14-8,  
Anthra[7,8,9,1,2,3-rstuvwx]hexaphene 120836-16-0,  
Anthra[3,2,1,9,8-rstuva]benzo[ij]pentaphene 120836-17-1  
120836-18-2, Anthra[3,2,1,9-pqra]benzo[cd]perylene  
120864-23-5, Dibenzo[ghi,lm]naphtho[1,8-ab]perylene  
120864-24-6, Anthra[2,1,9,8,7-defghi]benzo[op]pentacene  
122677-68-3, Dinaphtho[8,1,2-abc:2',1',8'-efg]coronene  
123178-01-8D, derivs. 123178-24-5D, derivs.  
128345-67-5, Tribenzo[a,hi,kl]coronene 128345-68-6,

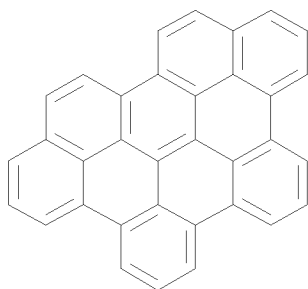
Tribenzo[a,ef,no]coronene 128345-69-7,  
Benzo[bc]naphtho[3,2,1-ef]coronene 128345-70-0,  
Tribenzo[a,ef,hi]coronene 128345-71-1,  
Naphtho[3,2,1,8,7-defgh]pyranthrene 128345-72-2,  
Benzo[bc]naphtho[1,2,3-ef]coronene 128345-73-3,  
Anthra[9,1,2-abc]coronene 128345-74-4,  
Dinaphtho[8,1,2-abc:2',1',8'-hij]coronene 128345-75-5,  
Dibenzo[kl,no]naphtho[8,1,2-abc]coronene 128345-76-6,  
Benzo[ef]phenaleno[9,1,2-abc]coronene 128345-77-7,  
Dibenzo[hi,kl]naphtho[8,1,2-abc]coronene 128345-78-8,  
Anthra[1,9,8-abcd]benzo[hi]coronene 128345-79-9,  
Benzo[qrs]naphtho[3,2,1,8,7-defgh]pyranthrene 128366-79-0,  
Tetrabenzo[bc,ef,hi,kl]coronene 128395-02-8,  
Dinaphtho[8,1,2-abc:2',1',8'-nop]coronene 128395-03-9,  
Dibenzo[ef,hi]naphtho[8,1,2-abc]coronene 128515-16-2,  
Dibenzo[ef,no]naphtho[8,1,2-abc]coronene 133156-51-1,  
Dibenzo[fg,ij]benzo[9,10]pyreno[5,4,3,2,1-pqrst]pentaphene  
196311-56-5D, derivs. 218629-56-2D, derivs.  
682331-04-0D, Benzo[g]phenanthro[1,10,9-abc]coronene, derivs.  
682331-06-2D, derivs.

RL: DEV (Device component use); USES (Uses)

(organic light-emitting diode devices using luminescent mixts.)

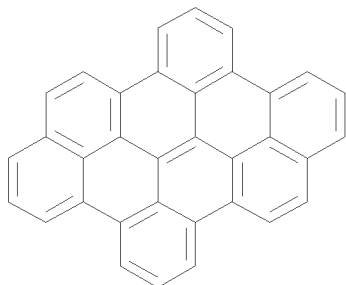
RN 187-94-0 CAPLUS

CN Dibenzo[fg,ij]phenanthro[2,1,10,9,8,7-pqrstuv]pentaphene (CA INDEX NAME)



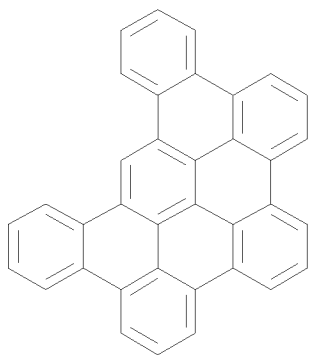
RN 187-95-1 CAPLUS

CN Perylo[3,2,1,12-pqgrab]perylene (8CI, 9CI) (CA INDEX NAME)



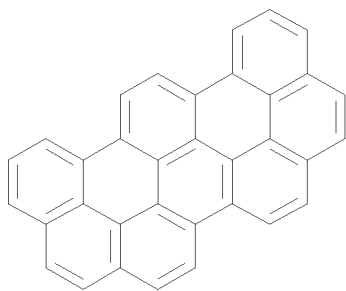
RN 188-00-1 CAPLUS

CN Dibenzo[fg,ij]phenanthro[9,10,1,2,3-pqrst]pentaphene (CA INDEX NAME)



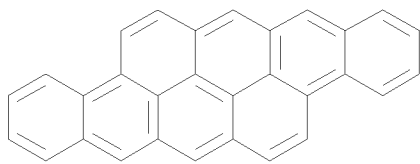
RN 188-11-4 CAPLUS

CN Benzo[pqr]dinaphtho[8,1,2-bcd:2',1',8'-lmn]perylene (CA INDEX NAME)



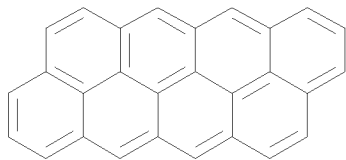
RN 188-42-1 CAPLUS

CN Naphthaceno[2,1,12,11-opqra]naphthacene (CA INDEX NAME)



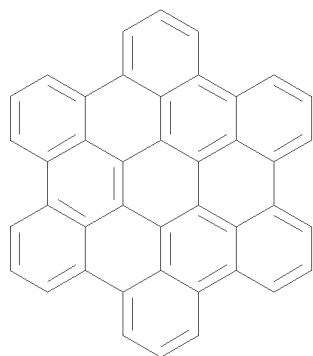
RN 188-50-1 CAPLUS

CN peri-Naphthacenonaphthacene (CA INDEX NAME)



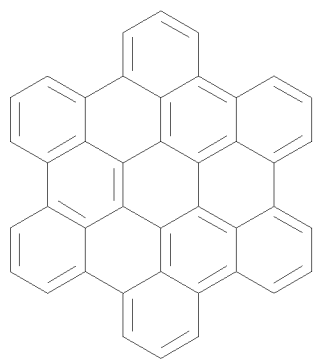
RN 190-24-9 CAPLUS

CN Hexabenzo[bc,ef,hi,kl,no,qr]coronene (CA INDEX NAME)



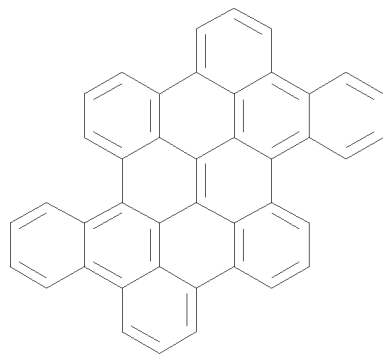
RN 190-24-9 CAPLUS

CN Hexabenzo[bc,ef,hi,kl,no,qr]coronene (CA INDEX NAME)



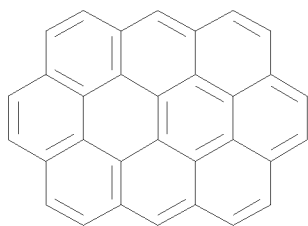
RN 190-25-0 CAPLUS

CN Tetrabenzo[gh,jk,tu,wx]pyranthrene (6CI, 8CI, 9CI) (CA INDEX NAME)



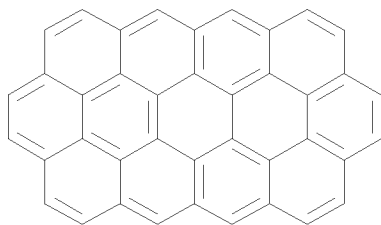
RN 190-26-1 CAPLUS

CN Ovalene (CA INDEX NAME)



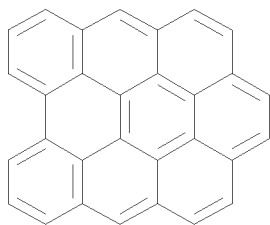
RN 190-28-3 CAPLUS

CN Phenanthro[3,4,5,6-bcdef]ovalene (CA INDEX NAME)



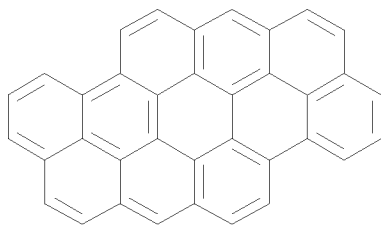
RN 190-31-8 CAPLUS

CN Dibenzo[bc,ef]coronene (CA INDEX NAME)



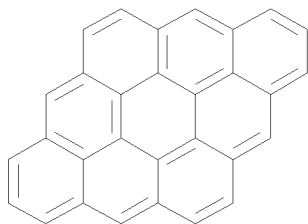
RN 190-47-6 CAPLUS

CN Dinaphtho[8,1,2-abc:8',1',2'-jkl]coronene (CA INDEX NAME)

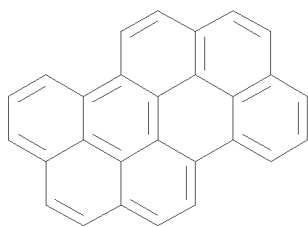


RN 190-55-6 CAPLUS

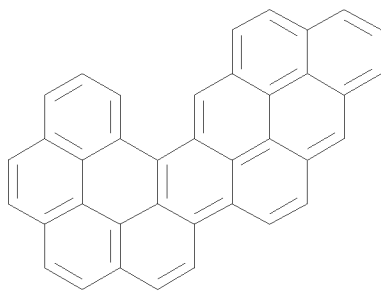
CN Dibenzo[bc,kl]coronene (CA INDEX NAME)



RN 190-71-6 CAPLUS  
CN Benzo[pqr]naphtho[8,1,2-bcd]perylene (CA INDEX NAME)

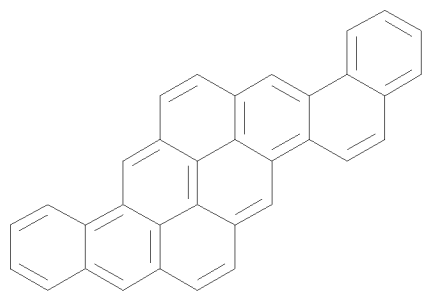


RN 190-90-9 CAPLUS  
CN Benzo[rs]dinaphtho[2,1,8,7-klmn:3',2',1',8',7'-vwxyz]hexaphene (CA INDEX NAME)

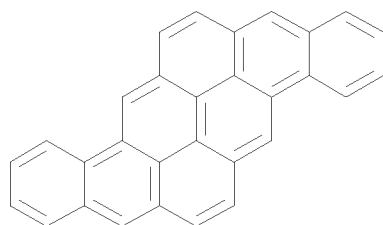


RN 191-12-8 CAPLUS  
CN Benzo[a]pyranthrene (8CI, 9CI) (CA INDEX NAME)

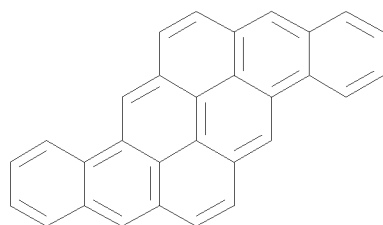




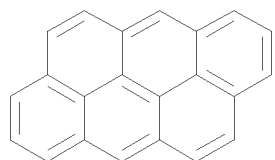
RN 191-13-9 CAPLUS  
CN Pyranthrene (CA INDEX NAME)



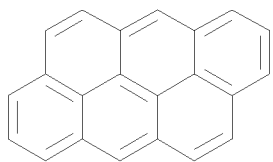
RN 191-13-9 CAPLUS  
CN Pyranthrene (CA INDEX NAME)



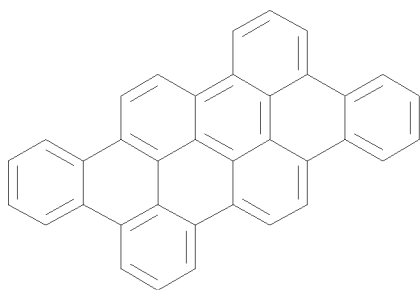
RN 191-26-4 CAPLUS  
CN Dibenzo[def,mno]chrysene (CA INDEX NAME)



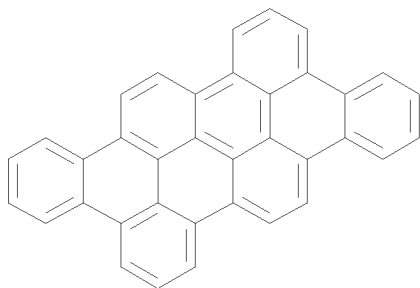
RN 191-26-4 CAPLUS  
CN Dibenzo[def,mno]chrysene (CA INDEX NAME)



RN 313-65-5 CAPLUS

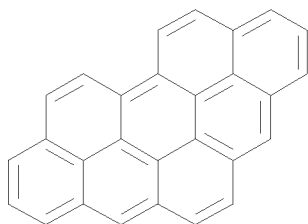
CN Dibenzo[*ij, rst*]phenanthro[9, 10, 1, 2-defg]pentaphene (CA INDEX NAME)

RN 313-65-5 CAPLUS

CN Dibenzo[*ij, rst*]phenanthro[9, 10, 1, 2-defg]pentaphene (CA INDEX NAME)

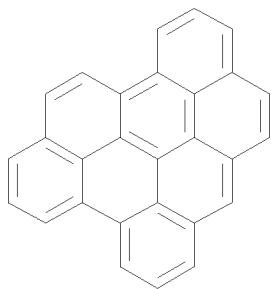
RN 4552-79-8 CAPLUS

CN Phenanthro[2, 1, 10, 9, 8, 7-pqrstuv]pentaphene (CA INDEX NAME)



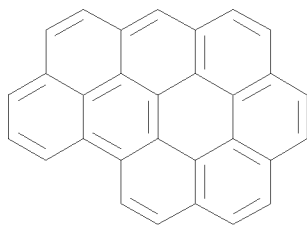
RN 6208-20-4 CAPLUS

CN Benzo[*cd*]naphtho[3, 2, 1, 8-pqra]perylene (CA INDEX NAME)



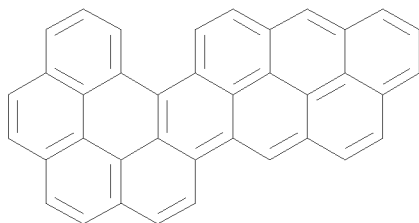
RN 6596-38-9 CAPLUS

CN Naphtho[8,1,2-abc]coronene (CA INDEX NAME)



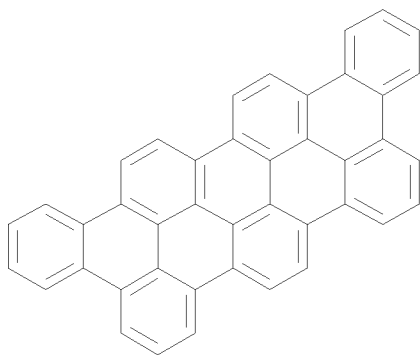
RN 22176-87-0 CAPLUS

CN Anthra[2,1,9,8-stuva]benzo[op]naphtho[2,1,8,7-hijk]pentacene (CA INDEX NAME)



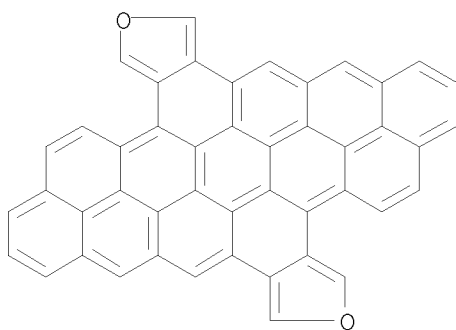
RN 34814-80-7 CAPLUS

CN Dibenzo[fg,mn]phenanthro[2,1,10,9,8,7-vwxyzalbl]heptaphene (9CI) (CA INDEX NAME)



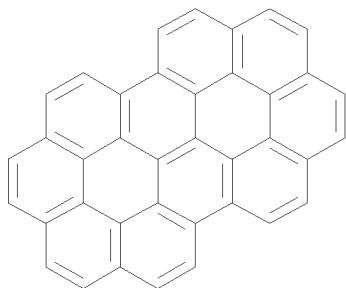
RN 41132-64-3 CAPLUS

CN Diphenaleno[9',1',2':3,4,5:9'',1'',2'':9,10,11]coroneno[1,2-c:7,8-c']difuran (9CI) (CA INDEX NAME)



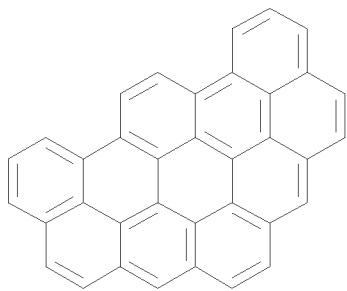
RN 41163-25-1 CAPLUS

CN Naphth[2',1',8',7':4,10,5]anthra[1,9,8-abcd]coronene (CA INDEX NAME)



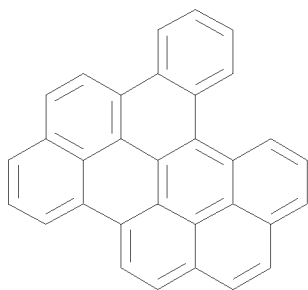
RN 53086-28-5 CAPLUS

CN Dinaphtho[8,1,2-abc:2',1',8'-klm]coronene (9CI) (CA INDEX NAME)



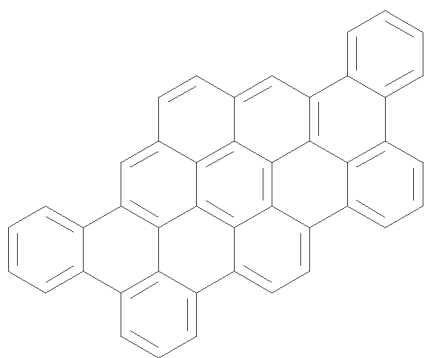
RN 57789-81-8 CAPLUS

CN Dibenzo[a,ghi]naphtho[2,1,8-cde]perylene (CA INDEX NAME)



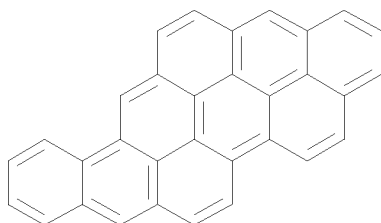
RN 70346-75-7 CAPLUS

CN Dibenzo[a,jk]phenanthro[8,9,10,1,2-cdefgh]pyranthrene (9CI) (CA INDEX NAME)

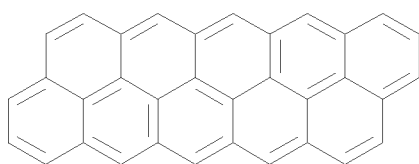


RN 72986-34-6 CAPLUS

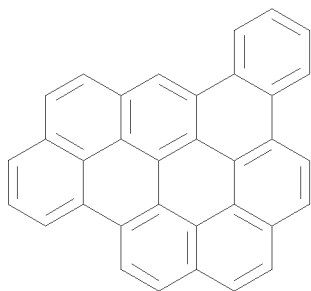
CN Benzo[def]pyranthrene (9CI) (CA INDEX NAME)



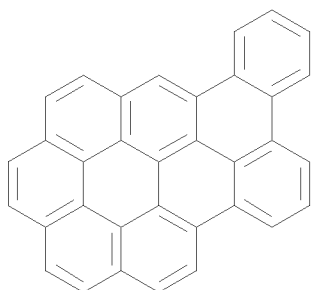
RN 74335-56-1 CAPLUS  
CN peri-Pentacenopentacene (9CI) (CA INDEX NAME)



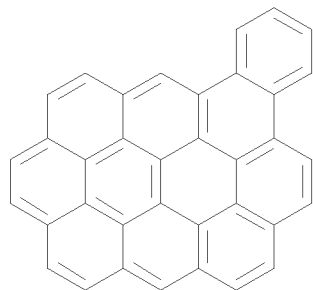
RN 75449-86-4 CAPLUS  
CN Benzo[g]naphtho[8,1,2-abc]coronene (9CI) (CA INDEX NAME)



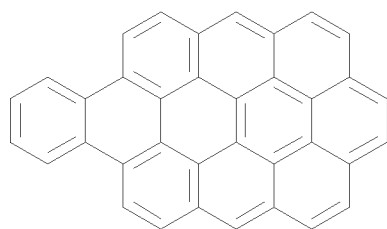
RN 75449-87-5 CAPLUS  
CN Phenanthro[1,10,9-abc]coronene (9CI) (CA INDEX NAME)



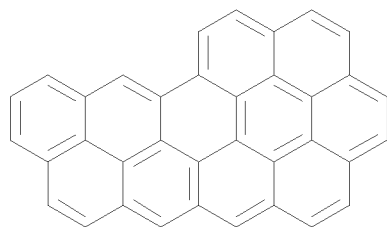
RN 75449-88-6 CAPLUS  
CN Benz[a]ovalene (9CI) (CA INDEX NAME)



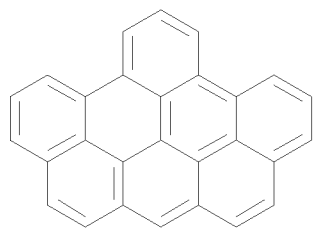
RN 75449-89-7 CAPLUS  
CN Benz[d]ovalene (9CI) (CA INDEX NAME)



RN 75449-90-0 CAPLUS  
CN Pyreno[10,1,2-abc]coronene (9CI) (CA INDEX NAME)

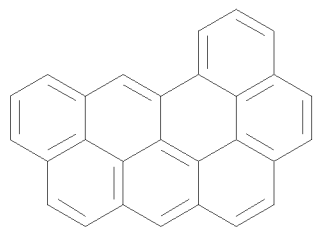


RN 75449-92-2 CAPLUS  
CN Phenanthro[5,4,3,2-abcde]perylene (CA INDEX NAME)



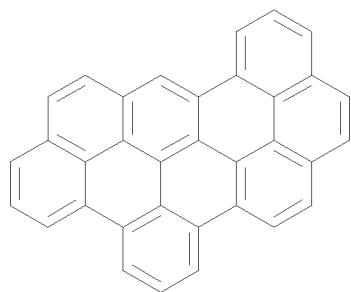
RN 75449-94-4 CAPLUS

CN Benzo[lmn]naphtho[2,1,8-*qra*]perylene (CA INDEX NAME)



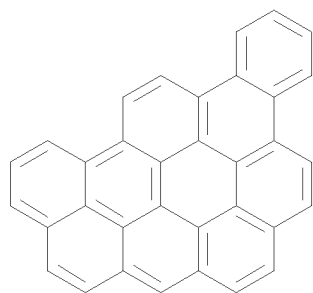
RN 75449-98-8 CAPLUS

CN Benzo[*ij*]dinaphtho[2,1,8,7-*defg*:7',8',1',2',3'-*pqrst*]pentaphene (9CI) (CA INDEX NAME)



RN 75449-99-9 CAPLUS

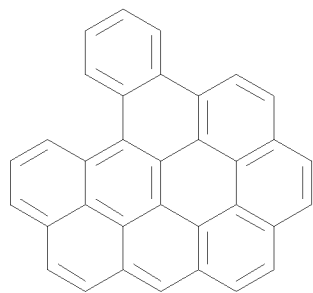
CN Benzo[*m*]naphtho[8,1,2-*abc*]coronene (9CI) (CA INDEX NAME)



RN 75450-00-9 CAPLUS

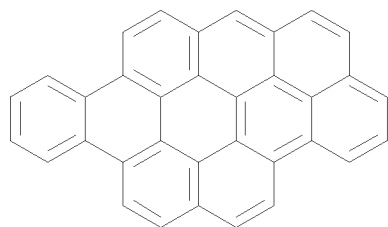
CN Benzo[*p*]naphtho[8,1,2-*abc*]coronene (CA INDEX NAME)





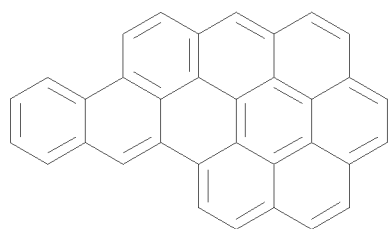
RN 75459-00-6 CAPLUS

CN Benzo[j]naphtho[8,1,2-abc]coronene (9CI) (CA INDEX NAME)



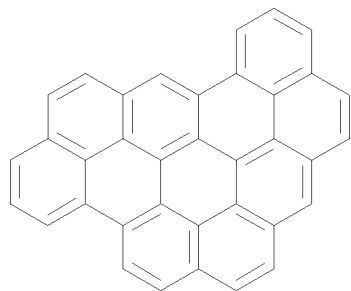
RN 75459-01-7 CAPLUS

CN Phenanthro[10,1,2-abc]coronene (9CI) (CA INDEX NAME)



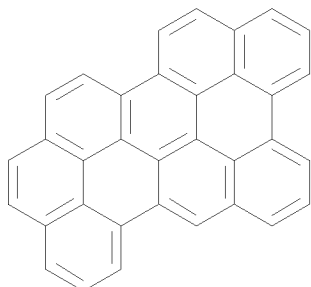
RN 75459-02-8 CAPLUS

CN Dinaphtho[8,1,2-abc:8',1',2'-ghi]coronene (9CI) (CA INDEX NAME)



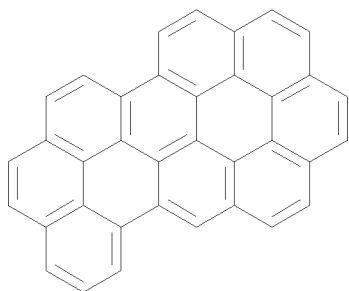
RN 75459-03-9 CAPLUS

CN Dibenzo[de,ij]phenanthro[2,1,10,9,8,7-pqrstuv]pentaphene (9CI) (CA INDEX NAME)



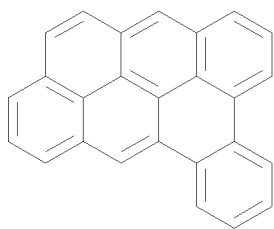
RN 75459-04-0 CAPLUS

CN Pyreno[1,10,9-abc]coronene (9CI) (CA INDEX NAME)



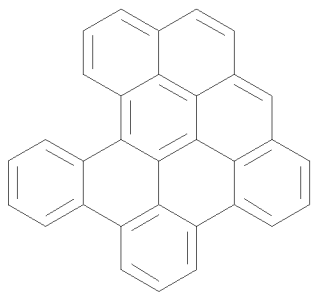
RN 75459-05-1 CAPLUS

CN Benzo[qr]naphtho[3,2,1,8-defg]chrysene (9CI) (CA INDEX NAME)

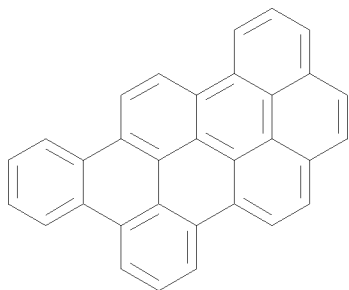


RN 75459-08-4 CAPLUS

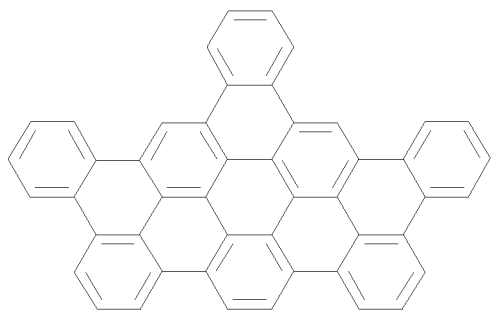
CN Dibenzo[a,cd]naphtho[8,1,2,3-fghi]perylene (CA INDEX NAME)



RN 75459-09-5 CAPLUS

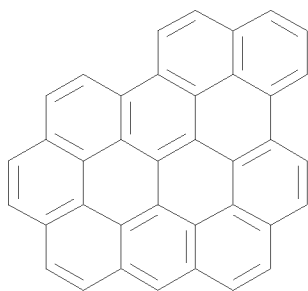
CN Dibenzo[*ij,rst*]naphtho[2,1,8,7-*defg*]pentaphene (9CI) (CA INDEX NAME)

RN 77147-27-4 CAPLUS

CN Tribenzo[*a,jk,v*]phenanthro[8,9,10,1,2-*cdefgh*]pyranthrene (9CI) (CA INDEX NAME)

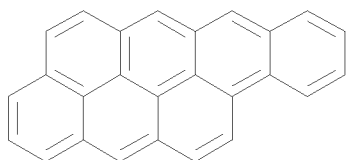
RN 91374-35-5 CAPLUS

CN Naphth[2,1,8-*uva*]ovalene (9CI) (CA INDEX NAME)



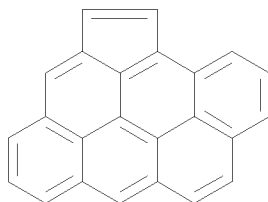
RN 92586-98-6 CAPLUS

CN Anthra[2,1,9,8-opqra]naphthacene (CA INDEX NAME)



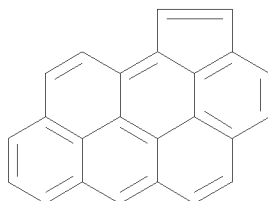
RN 96915-19-4 CAPLUS

CN Benz[mno]indeno[5,6,7,1-defg]chrysene (CA INDEX NAME)



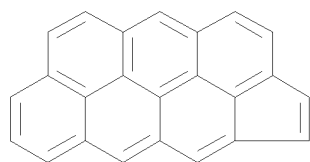
RN 96915-20-7 CAPLUS

CN Dibenzo[def,mno]cyclopenta[hi]chrysene (CA INDEX NAME)

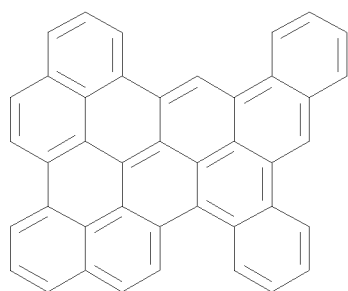


RN 96915-21-8 CAPLUS

CN Benz[mno]indeno[1,7,6,5-cdef]chrysene (CA INDEX NAME)



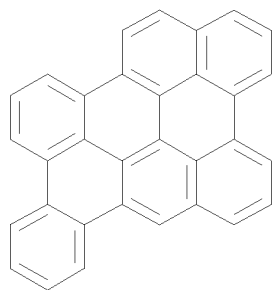
RN 105442-96-4 CAPLUS  
 CN Dibenzo[def,i]naphtho[8,1,2-vwx]pyranthrene (9CI) (CA INDEX NAME)



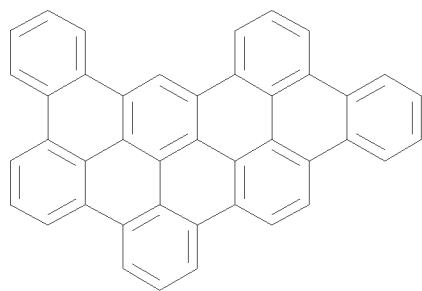
RN 108189-73-7 CAPLUS  
 CN Tetrabenzo[3',4':3''',4''';  
 5',6':5''',6''']bisanthra[2',1',9',8',7':4,5,6,7]naphthaceno[2,1,12,11,10,  
 9-fghijklm:2',1',12',11',10',9'-uvwxyzalbl]heptacene (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

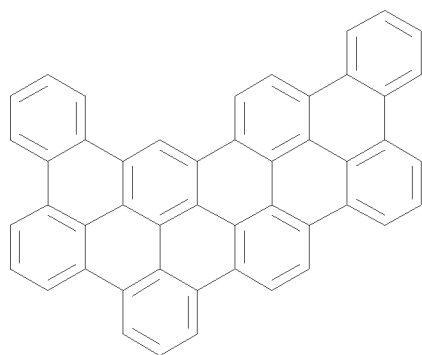
RN 109278-09-3 CAPLUS  
 CN Dibenzo[cd,n]naphtho[3,2,1,8-pqra]perylene (9CI) (CA INDEX NAME)



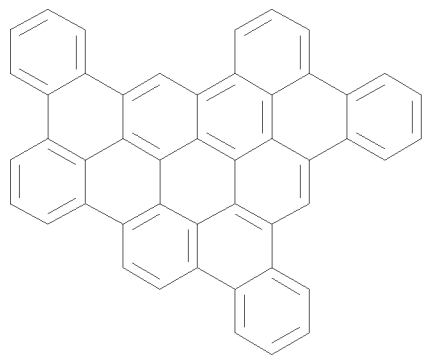
RN 115697-04-6 CAPLUS  
 CN Dibenzo[a,qr]benzo[5,6]naphthaceno[10,11,12,1,2-cdefghi]pentacene (9CI)  
 (CA INDEX NAME)



RN 115697-10-4 CAPLUS

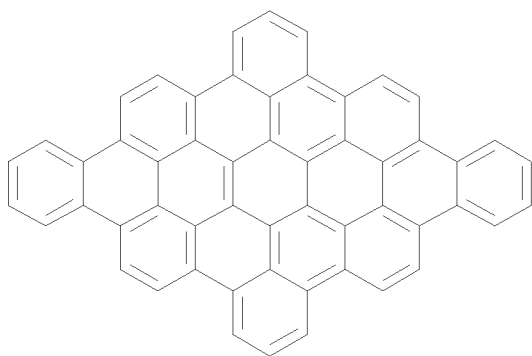
CN Tribenzo[fg,q,vwx]benzo[5,6]naphthaceno[2,1,12,11,10-ijklmno]hexaphene  
(9CI) (CA INDEX NAME)

RN 115697-12-6 CAPLUS

CN Benzo[m]diphenanthro[1,10,9-abc:1',10',9'-ghi]coronene (9CI) (CA INDEX  
NAME)

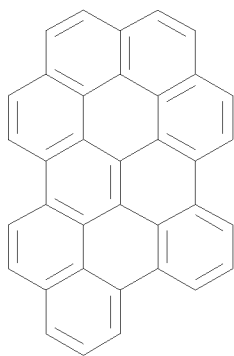
RN 115697-46-6 CAPLUS

CN Tribenzo[hi,o,uv]triphenylene[2,1,12,11-bcdef]ovalene (CA INDEX NAME)



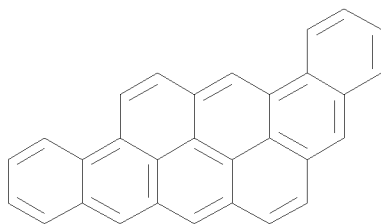
RN 117726-83-7 CAPLUS

CN Benz[4,10]anthra[1,9,8-abcd]coronene (9CI) (CA INDEX NAME)



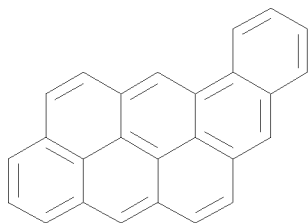
RN 119123-36-3 CAPLUS

CN Naphtho[7,8,1,2,3-tuvw]hexaphene (9CI) (CA INDEX NAME)



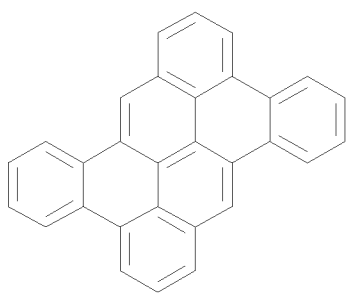
RN 120835-55-4 CAPLUS

CN Naphtho[7,8,1,2,3-pqrst]pentaphene (CA INDEX NAME)



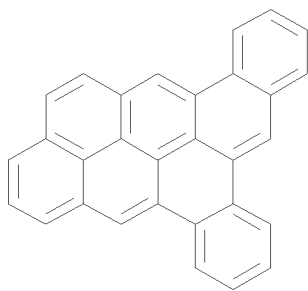
RN 120835-61-2 CAPLUS

CN Dibenzo[b,qr]naphtho[3,2,1,8-defg]chrysene (9CI) (CA INDEX NAME)



RN 120835-69-0 CAPLUS

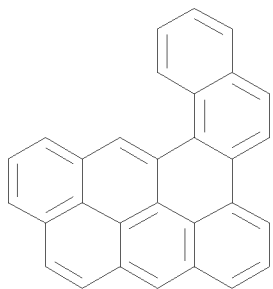
CN Benzo[h]naphtho[7,8,1,2,3-pqrst]pentaphene (9CI) (CA INDEX NAME)



RN 120835-72-5 CAPLUS

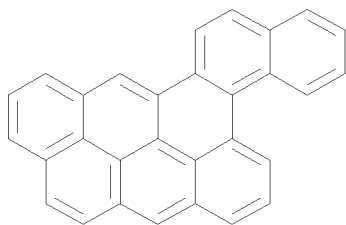
CN Dibenzo[c,hi]naphtho[3,2,1,8-mnop]chrysene (9CI) (CA INDEX NAME)





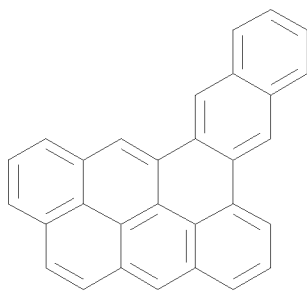
RN 120835-74-7 CAPLUS

CN Benzo[de]naphtho[8,1,2,3-stuv]picene (9CI) (CA INDEX NAME)



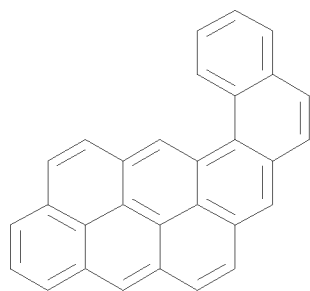
RN 120835-77-0 CAPLUS

CN Anthra[2,1,9,8-defgh]pentaphene (9CI) (CA INDEX NAME)

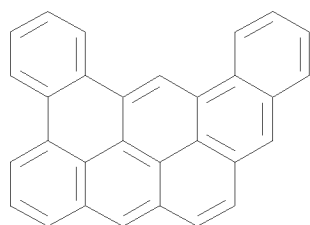


RN 120835-78-1 CAPLUS

CN Benzo[a]naphtho[7,8,1,2,3-pqrst]pentaphene (9CI) (CA INDEX NAME)



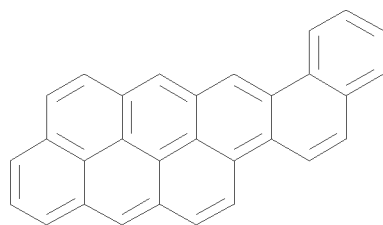
RN 120835-79-2 CAPLUS  
CN Phenanthro[9,10,1,2,3-pqrst]pentaphene (9CI) (CA INDEX NAME)



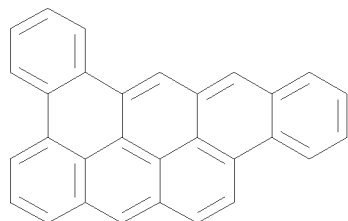
RN 120835-80-5 CAPLUS  
CN Benzo[c]naphtho[7,8,1,2,3-pqrst]pentaphene (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 120835-81-6 CAPLUS  
CN Phenanthro[2,3,4,5-tuvab]picene (9CI) (CA INDEX NAME)

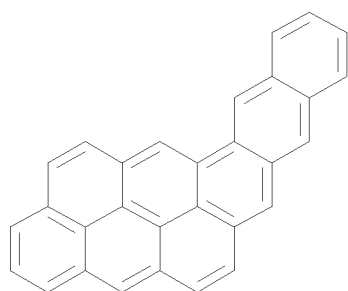


RN 120835-82-7 CAPLUS  
CN Anthra[8,9,1,2-cdefg]benzo[a]naphthacene (9CI) (CA INDEX NAME)



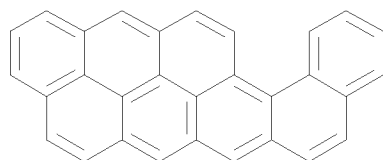
RN 120835-85-0 CAPLUS

CN Naphtho[3,2,1,8,7-vwxyz]hexaphene (9CI) (CA INDEX NAME)



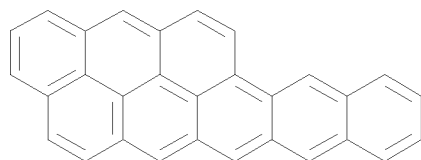
RN 120835-87-2 CAPLUS

CN Anthra[8,9,1,2-lmnop]benzo[a]naphthacene (9CI) (CA INDEX NAME)



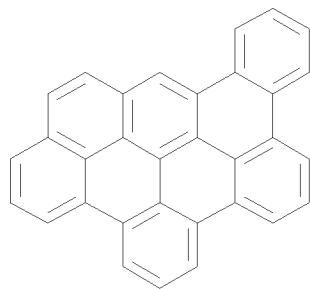
RN 120835-88-3 CAPLUS

CN Anthra[2,1,9,8-stuva]pentacene (9CI) (CA INDEX NAME)



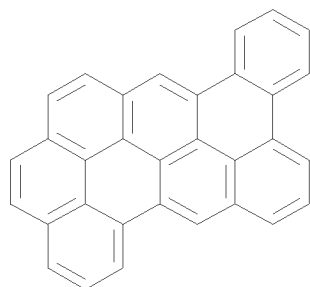
RN 120835-91-8 CAPLUS

CN Dibenzo[fg,ij]naphtho[7,8,1,2,3-pqrst]pentaphene (9CI) (CA INDEX NAME)



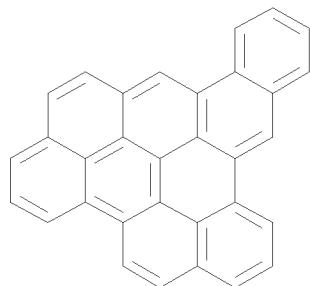
RN 120835-92-9 CAPLUS

CN Dibenzo[de,ij]naphtho[3,2,1,8,7-rstuv]pentaphene (9CI) (CA INDEX NAME)



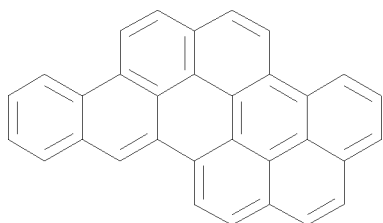
RN 120835-93-0 CAPLUS

CN Dinaphtho[2,1,8-fgh:3',2',1',8',7'-rstuv]pentaphene (9CI) (CA INDEX NAME)



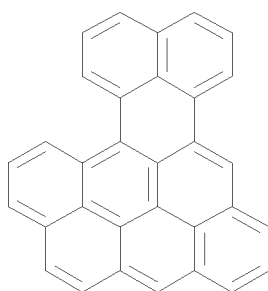
RN 120835-94-1 CAPLUS

CN Dinaphtho[2,1,8,7-defg:2',1',8',7'-qrst]pentacene (9CI) (CA INDEX NAME)



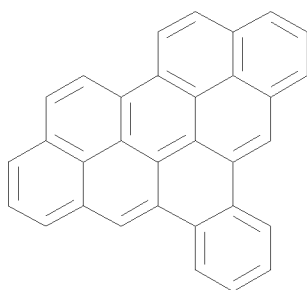
RN 120835-95-2 CAPLUS

CN Dinaphtho[1,8-ab:8',1',2',3'-fghi]perylene (9CI) (CA INDEX NAME)



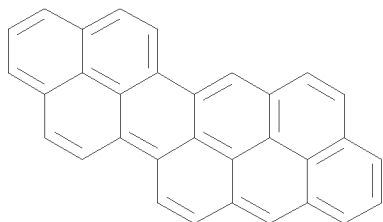
RN 120835-96-3 CAPLUS

CN Benzo[h]phenanthro[2,1,10,9,8,7-pqrstuv]pentaphene (9CI) (CA INDEX NAME)



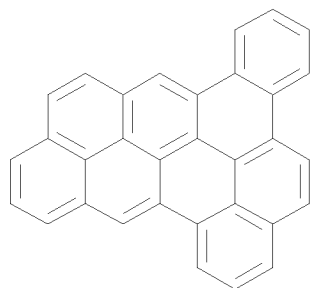
RN 120835-97-4 CAPLUS

CN Dinaphtho[8,1,2-cde:7',8',1',2',3'-pqrst]pentaphene (9CI) (CA INDEX NAME)



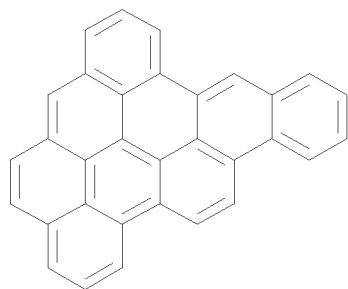
RN 120835-98-5 CAPLUS

CN Dinaphtho[2,1,8-fgh:7',8',1',2',3'-pqrst]pentaphene (9CI) (CA INDEX NAME)



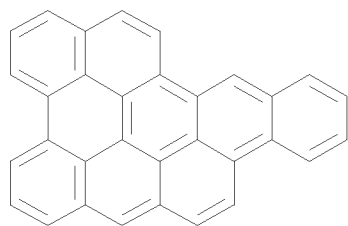
RN 120836-01-3 CAPLUS

CN Anthra[2,1,9,8-defgh]benzo[rst]pentaphene (9CI) (CA INDEX NAME)



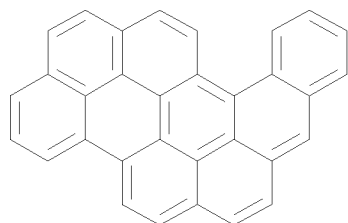
RN 120836-02-4 CAPLUS

CN Dibenzo[cd,k]naphtho[3,2,1,8-pqra]perylene (9CI) (CA INDEX NAME)

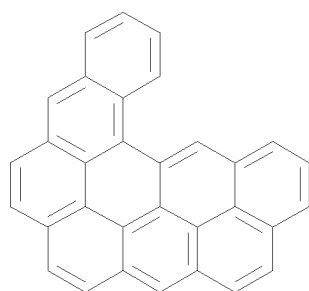


RN 120836-03-5 CAPLUS

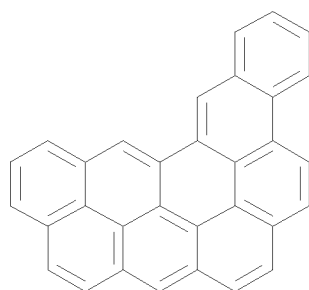
CN Dibenzo[a,ghi]naphtho[8,1,2-klm]perylene (9CI) (CA INDEX NAME)



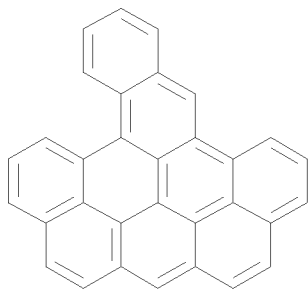
RN 120836-04-6 CAPLUS  
CN Dibenzo[a,ghi]naphtho[2,1,8-lmn]perylene (9CI) (CA INDEX NAME)



RN 120836-05-7 CAPLUS  
CN Dibenzo[ghi,n]naphtho[8,1,2-bcd]perylene (9CI) (CA INDEX NAME)

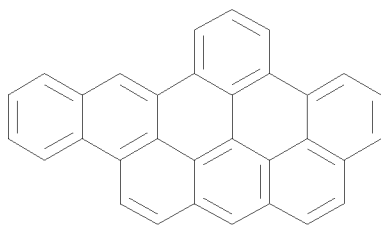


RN 120836-06-8 CAPLUS  
CN Benzo[e]phenanthro[2,3,4,5-pqrab]perylene (CA INDEX NAME)



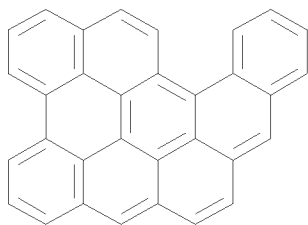
RN 120836-08-0 CAPLUS

CN Anthra[2,1,9,8,7-defghi]benzo[st]pentacene (9CI) (CA INDEX NAME)



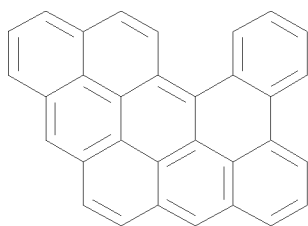
RN 120836-11-5 CAPLUS

CN Pyreno[5,4,3,2,1-pqrst]pentaphene (9CI) (CA INDEX NAME)



RN 120836-12-6 CAPLUS

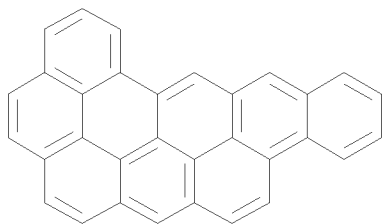
CN Benzo[3,4]phenanthro[2,1,10,9,8,7-pqrstuv]pentaphene (9CI) (CA INDEX NAME)



RN 120836-13-7 CAPLUS

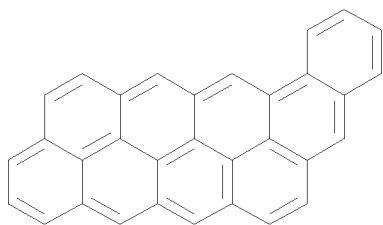


CN Anthra[2,1,9,8,7-defghi]benzo[uv]pentacene (9CI) (CA INDEX NAME)



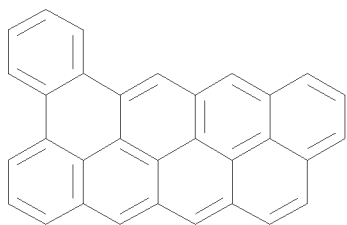
RN 120836-14-8 CAPLUS

CN Anthra[7,8,9,1,2,3-rstuvwx]hexaphene (9CI) (CA INDEX NAME)



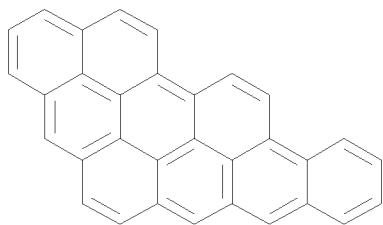
RN 120836-16-0 CAPLUS

CN Anthra[3,2,1,9,8-rstuva]benzo[ij]pentaphene (9CI) (CA INDEX NAME)



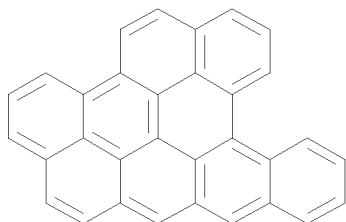
RN 120836-17-1 CAPLUS

CN Phenanthro[2,1,10,9,8,7-tuvwxyz]hexaphene (9CI) (CA INDEX NAME)

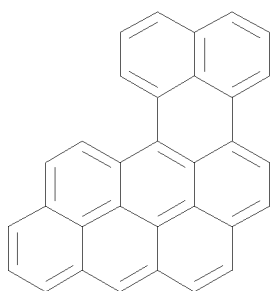


RN 120836-18-2 CAPLUS

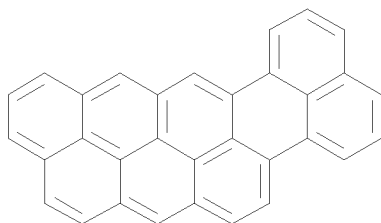
CN Anthra[3,2,1,9-pqra]benzo[cd]perylene (9CI) (CA INDEX NAME)



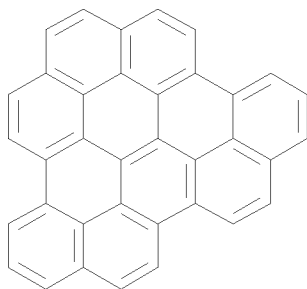
RN 120864-23-5 CAPLUS  
CN Dibenzo[ghi,lm]naphtho[1,8-ab]perylene (9CI) (CA INDEX NAME)



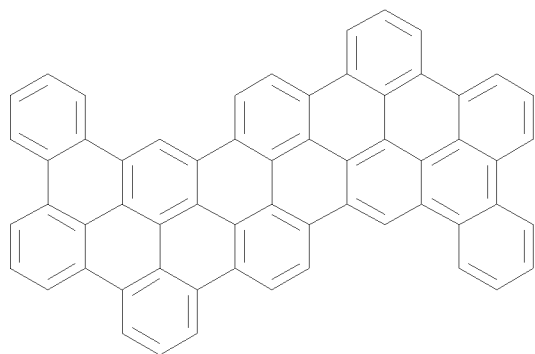
RN 120864-24-6 CAPLUS  
CN Anthra[2,1,9,8,7-defghi]benzo[op]pentacene (9CI) (CA INDEX NAME)



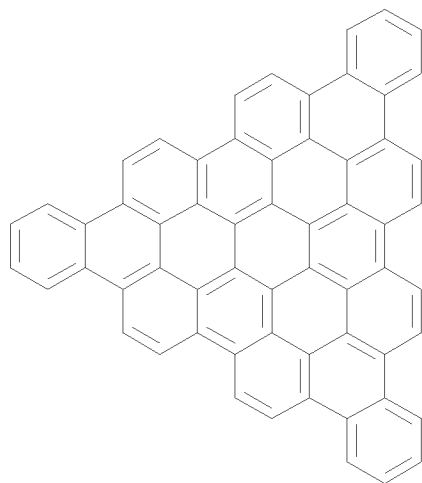
RN 122677-68-3 CAPLUS  
CN Dinaphtho[8,1,2-abc:2',1',8'-efg]coronene (9CI) (CA INDEX NAME)



RN 123178-01-8 CAPLUS

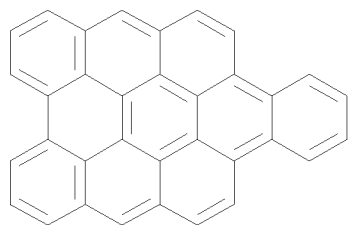
CN Dibenzo[lm,yz]bistriphenylene[12,1,2,3-bcdef:12',1',2',3'-  
opqrs]pyranthrene (9CI) (CA INDEX NAME)

RN 123178-24-5 CAPLUS

CN Benzo[o]bistriphenylene[2,1,12,11-efghi:2',1',12',11'-uvabc]ovalene (CA  
INDEX NAME)

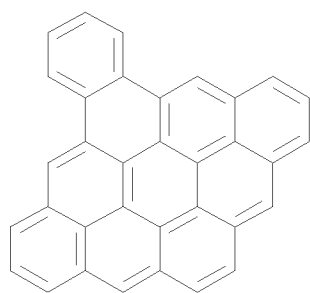
RN 128345-67-5 CAPLUS

CN Tribenzo[a,hi,kl]coronene (9CI) (CA INDEX NAME)



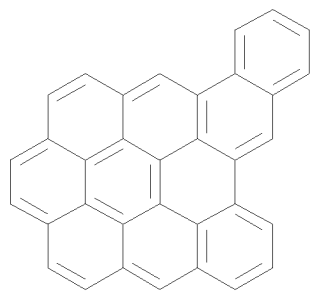
RN 128345-68-6 CAPLUS

CN Tribenzo[a,ef,no]coronene (9CI) (CA INDEX NAME)



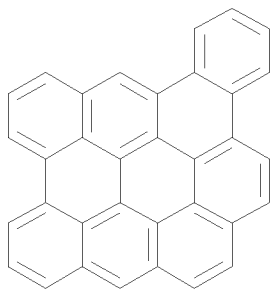
RN 128345-69-7 CAPLUS

CN Benzo[bc]naphtho[3,2,1-ef]coronene (9CI) (CA INDEX NAME)



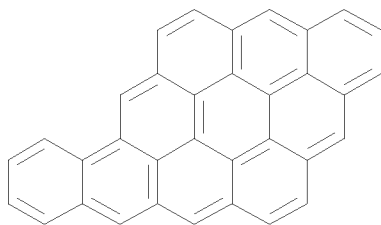
RN 128345-70-0 CAPLUS

CN Tribenzo[a,ef,hi]coronene (CA INDEX NAME)



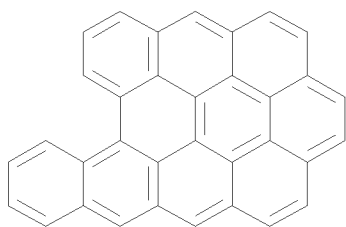
RN 128345-71-1 CAPLUS

CN Naphtho[3,2,1,8,7-defgh]pyranthrene (CA INDEX NAME)



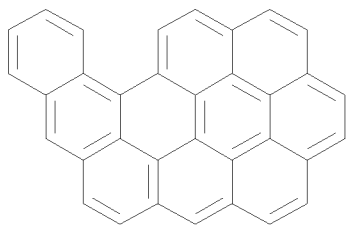
RN 128345-72-2 CAPLUS

CN Benzo[bc]naphtho[1,2,3-ef]coronene (9CI) (CA INDEX NAME)



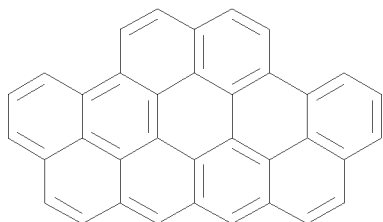
RN 128345-73-3 CAPLUS

CN Anthra[9,1,2-abc]coronene (9CI) (CA INDEX NAME)

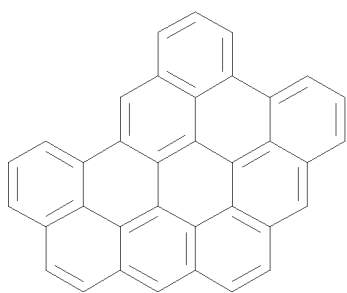


RN 128345-74-4 CAPLUS

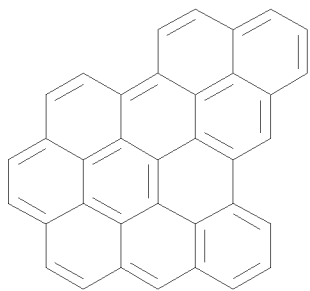
CN Dinaphtho[8,1,2-abc:2',1',8'-hij]coronene (9CI) (CA INDEX NAME)



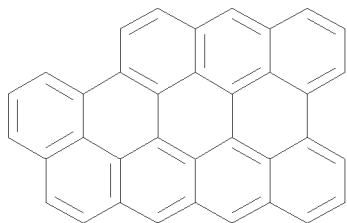
RN 128345-75-5 CAPLUS  
CN Dibenzo[kl,naphtho[8,1,2-abc]coronene (9CI) (CA INDEX NAME)



RN 128345-76-6 CAPLUS  
CN Benzo[ef]phenaleno[9,1,2-abc]coronene (9CI) (CA INDEX NAME)

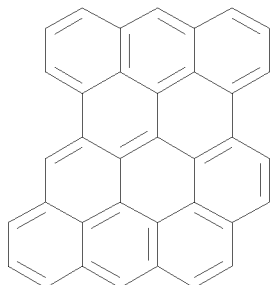


RN 128345-77-7 CAPLUS  
CN Dibenzo[hi,kl]naphtho[8,1,2-abc]coronene (9CI) (CA INDEX NAME)



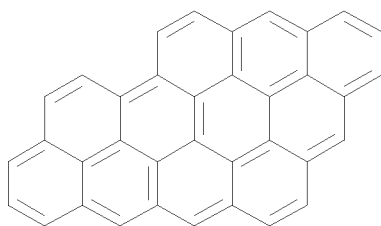
RN 128345-78-8 CAPLUS

CN Anthra[1,9,8-abcd]benzo[hi]coronene (9CI) (CA INDEX NAME)



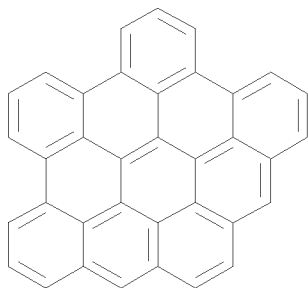
RN 128345-79-9 CAPLUS

CN Benzo[qrs]naphtho[3,2,1,8,7-defgh]pyranthrene (CA INDEX NAME)



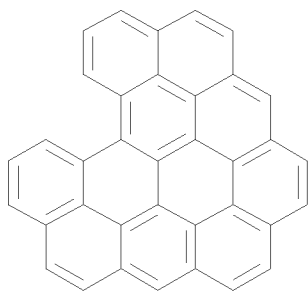
RN 128366-79-0 CAPLUS

CN Tetrabenzo[bc,ef,hi,kl]coronene (9CI) (CA INDEX NAME)



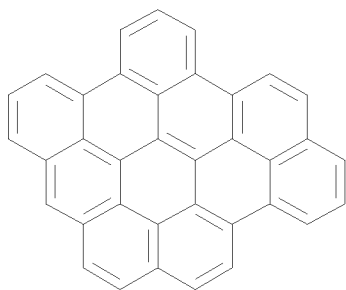
RN 128395-02-8 CAPLUS

CN Dinaphtho[8,1,2-abc:2',1',8'-nop]coronene (9CI) (CA INDEX NAME)



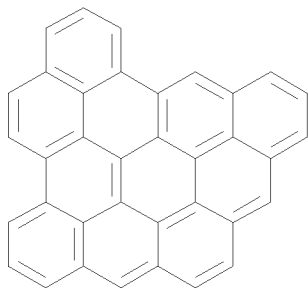
RN 128395-03-9 CAPLUS

CN Dibenzo[ef,hi]naphtho[8,1,2-abc]coronene (9CI) (CA INDEX NAME)



RN 128515-16-2 CAPLUS

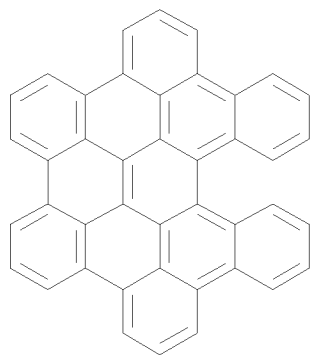
CN Dibenzo[ef,no]naphtho[8,1,2-abc]coronene (9CI) (CA INDEX NAME)



RN 133156-51-1 CAPLUS

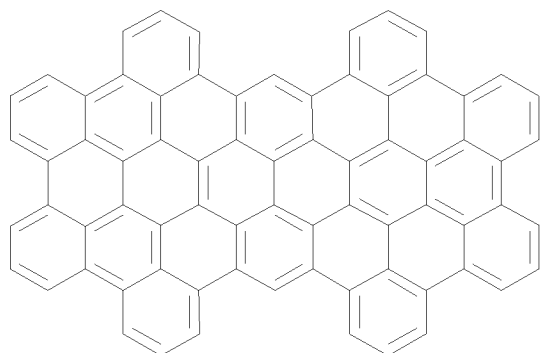
CN Dibenzo[fg,ij]benzo[9,10]pyreno[5,4,3,2,1-pqrst]pentaphene (9CI) (CA INDEX NAME)





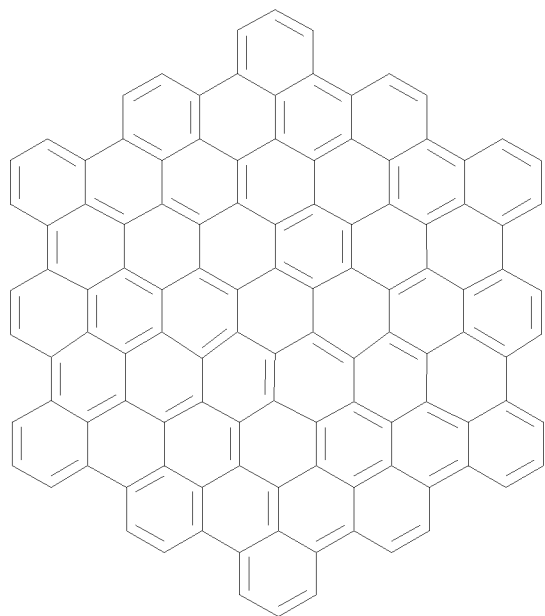
RN 196311-56-5 CAPLUS

CN Tetrabenzo[jk,mn,pq,st]dibenzo[3,4:9,10]phenanthro[1',10',9',8':5,6,7,8]perylo[2,1,12,11-bcdef]ovalene (9CI) (CA INDEX NAME)



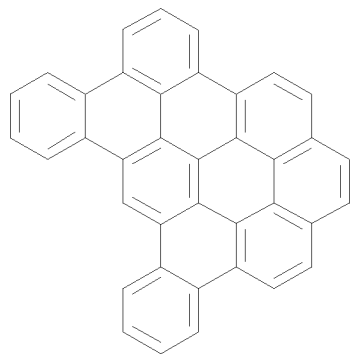
RN 218629-56-2 CAPLUS

CN Bisbenzo[5'',6'']naphthaceno[2'',1'',12'',11'',10'',9'':5',6',7',8',9']heptaceno[1',18',17',16',15',14',13':3,4,5,6,7,8,9,10]hexaceno[2,1,16,15,14,13,12,11-defghijklmno:2',1',16',15',14',13',12',11'-stuvwxyzalblclcl]heptacene (CA INDEX NAME)



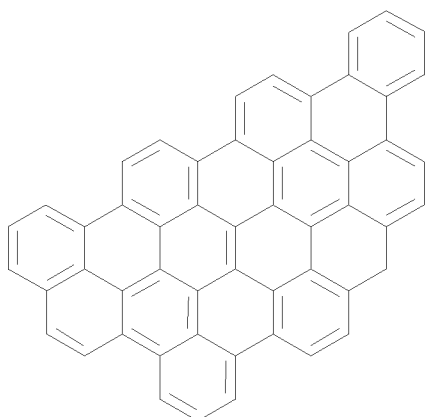
RN 682331-04-0 CAPLUS

CN Benzo[g]phenanthro[1,10,9-abc]coronene (9CI) (CA INDEX NAME)



RN 682331-06-2 CAPLUS

CN 11H-Benzo[jk]naphtho[2,1,8-mno]triphenyleno[2,1,12,11-uvabc]ovalene (9CI)  
(CA INDEX NAME)



OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)  
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:173103 CAPLUS

DOCUMENT NUMBER: 138:212613

TITLE: Condensed eight-ring aromatic compounds, organic electroluminescent element and organic electroluminescent display using the same

INVENTOR(S): Sotoyama, Wataru; Sato, Hiroyuki; Matsuura, Azuma; Narusawa, Toshiaki

PATENT ASSIGNEE(S): Fujitsu Limited, Japan; Fujifilm Corporation

SOURCE: Eur. Pat. Appl., 46 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
| EP 1289343  | A1   | 20030305 | EP 2002-252258   | 20020327 |
| EP 1289343  | B1   | 20070523 |                  |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR |      |          |                  |          |
| JP 2003151775   | A    | 20030523 | JP 2001-361504   | 20011127 |
| JP 4024526  | B2   | 20071219 |                  |          |
| KR 854881   | B1   | 20080828 | KR 2002-14971    | 20020320 |
| TW 552826   | B    | 20030911 | TW 2002-91105423 | 20020321 |
| US 20030082404  | A1   | 20030501 | US 2002-104013   | 20020325 |
| US 6805977  | B2   | 20041019 |                  |          |
| CN 1403427  | A    | 20030319 | CN 2002-108709   | 20020329 |
| CN 1239446  | C    | 20060201 |                  |          |

PRIORITY APPLN. INFO.: JP 2001-259684 A 20010829  
 JP 2001-361504 A 20011127

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

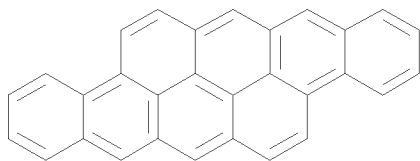
OTHER SOURCE(S): MARPAT 138:212613

AB Organic electroluminescent elements comprising an organic thin-film layer including a light-emitting layer in between a pos. electrode and a neg. electrode are described in which the organic thin-film layer contains a condensed eight-ring aromatic compound with a structure which has 14, 16, or 18 regions where substituents can be introduced and a point-sym. carbon skeleton. Selected substituted condensed eight-ring aromatic compds. are claimed. Displays employing the electroluminescent elements are also described.

IT 188-42-1, Naphthaceno[2,1,12,11-opqra]naphthacene  
188-50-1, peri-Naphthacenonaphthacene  
RL: DEV (Device component use); MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)  
(condensed eight-ring aromatic compds. and organic electroluminescent elements and displays using them)

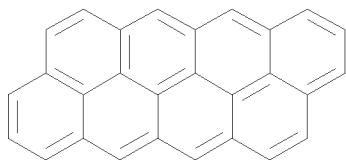
RN 188-42-1 CAPLUS

CN Naphthaceno[2,1,12,11-opqra]naphthacene (CA INDEX NAME)



RN 188-50-1 CAPLUS

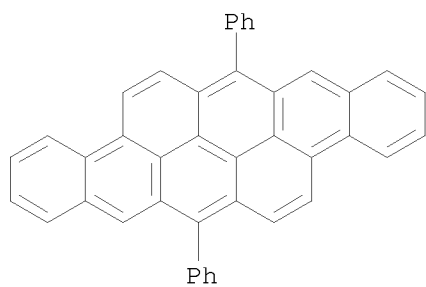
CN peri-Naphthacenonaphthacene (CA INDEX NAME)



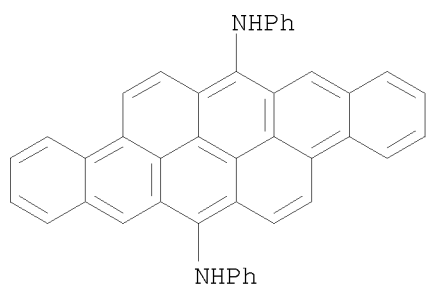
IT 500556-79-6P 500556-81-0P 500556-82-1P  
500556-83-2P 500556-85-4P 500556-86-5P  
RL: DEV (Device component use); MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(condensed eight-ring aromatic compds. and organic electroluminescent elements and displays using them)

RN 500556-79-6 CAPLUS

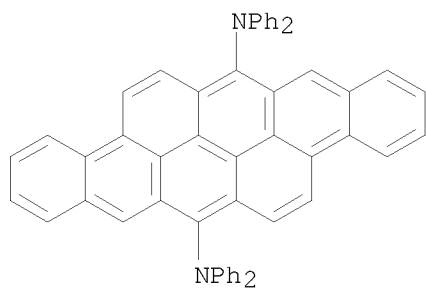
CN Naphthaceno[2,1,12,11-opqra]naphthacene, 7,15-diphenyl- (9CI) (CA INDEX NAME)

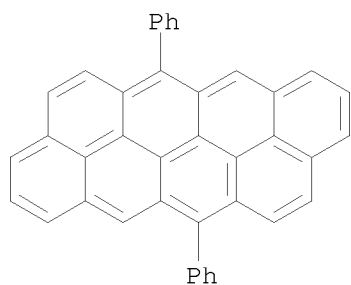


RN 500556-81-0 CAPLUS

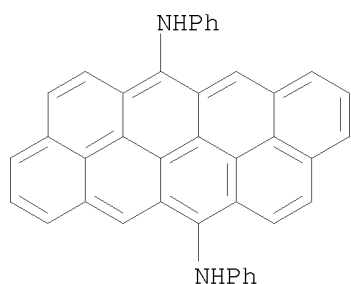
CN Naphthaceno[2,1,12,11-opqra]naphthacene-7,15-diamine, N,N'-diphenyl- (9CI)  
(CA INDEX NAME)

RN 500556-82-1 CAPLUS

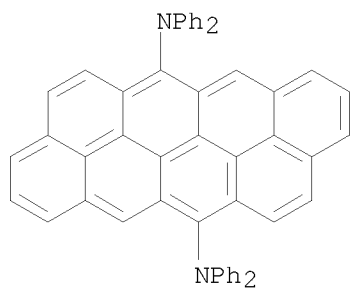
CN Naphthaceno[2,1,12,11-opqra]naphthacene-7,15-diamine,  
N,N,N',N'-tetraphenyl- (9CI) (CA INDEX NAME)



RN 500556-85-4 CAPLUS

CN Dinaphtho[8,1,2-cde:7',8',1',2',3'-nopqr]benz[a]anthracene-6,13-diamine,  
N6,N13-diphenyl- (CA INDEX NAME)

RN 500556-86-5 CAPLUS

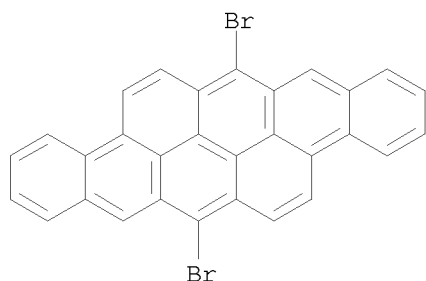
CN Dinaphtho[8,1,2-cde:7',8',1',2',3'-nopqr]benz[a]anthracene-6,13-diamine,  
N6,N6,N13,N13-tetraphenyl- (CA INDEX NAME)

IT 500556-80-9P 500556-84-3P

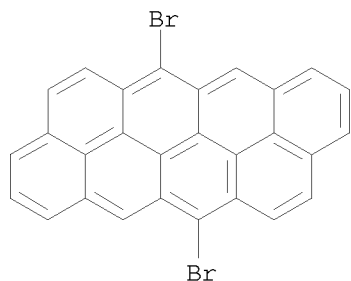
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)(condensed eight-ring aromatic compds. and organic electroluminescent  
elements and displays using them)

RN 500556-80-9 CAPLUS

CN Naphthaceno[2,1,12,11-opqra]naphthacene, 7,15-dibromo- (9CI) (CA INDEX  
NAME)



RN 500556-84-3 CAPLUS  
 CN Dinaphtho[8,1,2-cde:7',8',1',2',3'-nopqr]benz[a]anthracene, 6,13-dibromo-  
 (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
 (8 CITINGS)  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1998:761950 CAPLUS  
 DOCUMENT NUMBER: 130:18777  
 TITLE: Organic electroluminescent device  
 INVENTOR(S): Sano, Takeshi; Nishio, Yoshitaka  
 PATENT ASSIGNEE(S): Sanyo Electric Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 53 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 9851757   | A1   | 19981119 | WO 1998-JP1947  | 19980427 |
| W: JP, US  |      |          |                 |          |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
| EP 1020510   | A1   | 20000719 | EP 1998-917715  | 19980427 |
| R: DE, FR, GB, NL  |      |          |                 |          |
| JP 4278186   | B2   | 20090610 | JP 1998-549023  | 19980427 |
| US 6358633   | B1   | 20020319 | US 1999-308818  | 19990526 |

PRIORITY APPLN. INFO.: JP 1997-125192 A 19970515  
WO 1998-JP1947 W 19980427

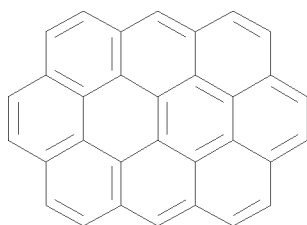
## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB An organic electroluminescent device comprises a luminescent layer made of at least an organic material and formed between a hole injection electrode and an electron injection electrode. The host material of the luminescent layer is doped with a dopant having  $\geq 3$  condensed rings. The energy difference between the HOMO of the host material and that of the dopant is -0.3 eV to +0.3 eV to ensure the efficient energy transfer from the host material to the guest material.

IT 190-26-1, Ovalene  
RL: MOA (Modifier or additive use); USES (Uses)  
(dopant used in luminescent layer in organic electroluminescent device)

RN 190-26-1 CAPLUS

CN Ovalene (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1978:436162 CAPLUS

DOCUMENT NUMBER: 89:36162

ORIGINAL REFERENCE NO.: 89:5473a, 5476a

TITLE: Development of principles for determining the type of molecular structure of unknown compounds of complex mixtures by luminescent spectroscopic methods

AUTHOR(S): Alekseeva, T. A.; Teplitskaya, T. A.

CORPORATE SOURCE: Geogr. Fak., Mosk. Gos. Univ., Moscow, USSR

SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya (1978), 42(3), 669-74

CODEN: IANFAY; ISSN: 0367-6765

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Quasilinear fluorescence was used to identify organic compds. in freshwater sediments, Curtisite, and anthanthrene. The spectra of the samples were compared with those of known compds. and on the basis of these comparisons, alkyl-substituted 3,4-benzopyrene was identified in the sediments, benzo[c]naphtho[1,2,3,4-mno]chysene- and 2,3-benzopicene-type compds. were identified in Curtisite, and 1,12-benzopyrene- and 3,4-benzopyrene-type compds. were identified in chemical pure anthanthrene. The sample spectra were recorded at 77.3 and 293 K in hexane or octane.

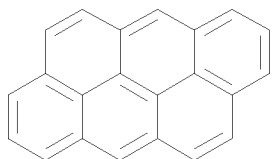
IT 191-26-4



RL: AMX (Analytical matrix); ANST (Analytical study)  
(isomeric benzopyrene-type compds. identification in, by quasilinear  
fluorometry)

RN 191-26-4 CAPLUS

CN Dibenzo[def,mno]chrysene (CA INDEX NAME)



L4 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1963:77900 CAPLUS

DOCUMENT NUMBER: 58:77900

ORIGINAL REFERENCE NO.: 58:13309e-f

TITLE: Effect of the solvent on the electronic spectrum of  
luminescent molecules

AUTHOR(S): Bilot, L.; Kowski, A.

CORPORATE SOURCE: Wyzsza Szkola Pedagogiczna, Gdansk, Pol.

SOURCE: Zeitschrift fuer Naturforschung (1963), 18a, 10-15

CODEN: ZNTFA2; ISSN: 0372-9516

DOCUMENT TYPE: Journal

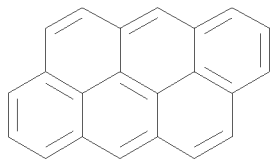
LANGUAGE: Unavailable

AB The results of the fluorescence spectroscopic expts. by Bakhshiev (CA 57, 4194h) are compared with an earlier theory on the effect of the solvent on the electronic spectrum (CA 57, 10657h). This theory considers only dipole-dipole and dipole-polarization forces. The equations allow detns. of the dipole moment in the excited state and of the angle between the dipole moments of ground and excited states. In several figures the observed waveno. difference for the shift of the fluorescence maximum is plotted as a function of the calculated  $\Delta\nu_{fl} - \Delta\nu_{f}$  of the fluorescence maximum of 4-dimethylamino-4'-nitrostilbene (I) and tetrachlorophthalic acid anhydride-hexamethylbenzene (II) in different solvents. The elec. dipole moments in the ground and excited state for I are  $M_g = 7.6$  D and  $M_e = 25.2$  D. The angle between the dipole moments is zero. The dipole moments for II are calculated to be  $M_g = 3.6$  D and  $M_e = 7.6$  D. The angle  $M_e - M_g$  is  $78^\circ$ .

IT 191-26-4, Dibenzo[def,mno]chrysene  
(spectrum of, solvent effects on)

RN 191-26-4 CAPLUS

CN Dibenzo[def,mno]chrysene (CA INDEX NAME)



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS

10/807,130 02/04/2010

STN: SEARCH

RECORD (16 CITINGS)

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